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WRONG NUMBERS

MCI WorldCom, Sprint, and monopoly power in the long-distance market

by William G. Shepherd

AT&T, MCI WorldCom, and Sprint are the Big Three firms that dominate U.S. long-distance telephone markets. The proposed merger of MCI WorldCom (which earns about 24% of market revenues) and Sprint (about 12%) would violate not only the standards that economic research has shown are necessary for competition, but also U.S. antitrust laws. The merger would also deepen MCI WorldCom and Sprint's monopoly control over the Internet backbone market, undermining further progress in that leading technology.[1]

MCI WorldCom and Sprint claim the opposite: that the merger would create more competition amid what they call "seismic changes" in telecommunications. They paint a picture of an "all distance" market that has removed the distinctions between local and long-distance. They also maintain that the merger will inject strong competition into the local telephone business, and that Regional Bell Operating Companies (RBOCs) are entering long distance so fast that their rivalry will mitigate any gain in monopoly power by a merged MCI WorldCom-Sprint.

Unfortunately, the evidence to support these hyperbolic claims is insufficient. Instead, the merger would intensify market power, raise prices, reduce innovation, and narrow consumers' choices. All categories of customers would be harmed, from the smallest households to the largest mega-corporations. The supposed benefits are mostly imaginary, and depend on seismic changes in telecommunications technology that are much more radical than informed observers expect.

Moreover, the supposed gains claimed for the merger are not really "net" benefits, which are the correct basis for judging the merits of combining two companies. Besides being the main competitors to AT&T, MCI WorldCom and Sprint have met and perhaps surpassed AT&T in innovation. Sprint has gone

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even further, building a reputation as a pricing "maverick" that has given consumers more low-price choices and encouraged competitors to follow suit. If MCI WorldCom and Sprint are kept separate rather than allowed to combine, the gains in efficiency and technological progress are likely to be enhanced.

The Federal Communications Commission (FCC) has three policy choices: denial, postponement, or revision. Denial is the appropriate response to the merger's violation of economic and legal standards. MCI WorldCom and Sprint would continue to evolve as increasingly strong, innovative rivals to AT&T. They would enter local service markets more fully, and they would accelerate the "seismic" advances in technology. In contrast, a merger would reduce variety and innovation and lead to higher prices.

A postponement by the FCC could be appropriate as well. If there is merit to the claims of MCI WorldCom and Sprint — claims of radical developments in telecommunications, the development of all-distance markets, incipient competition from wireless and the Baby Bells, and the inability of either company to succeed alone — then the developments they anticipate and that underlie their claims need time to mature into real market conditions. If in several years the MCI WorldCom-Sprint forecasts turn out to be correct, then the FCC might have sufficient grounds for approval. Rushing approval now would, in contrast, be irresponsible.

Finally, the FCC could compromise by requiring MCI WorldCom and Sprint to divest much of their local-service and Internet capacity and possibly even large wireless operations. Such severe changes might make the merger acceptable to the public and policy makers, but not to the companies themselves.

The threats to competition posed by the merger

Since 1984, AT&T's monopoly in long-distance has gradually yielded to a rivalry with MCI WorldCom and Sprint. But even three rivals are well short of full competition, and cutting from three to only two — AT&T and MCI WorldCom-Sprint — would result in a drastic drop in competition, with the potential to harm one of the economy's most important markets.

In this section, we review the broad economic criteria for judging competition and monopoly, and examine how these general rules apply to this proposed merger.[2]

Minimum criteria for effective competition

The criteria for effective competition have been established by many decades of economic and financial research and by widespread business experience.[3] The essential element is competitive parity among enough reasonably comparable rivals to prevent collusion, with free entry to reinforce the pressure.

Effective competition requires, at a minimum:

- the presence of at least five reasonably comparable competitors, in order to create unremitting mutual pressure and to preclude coordination and collusion among a few of them. In a market with fewer than five competitors, collusion becomes much more likely much of the time;[4]
- the absence of single-firm dominance, in order to prevent strong unilateral market control from being applied to a large share of the market;[5] and
- reasonably free entry into and among all segments of the market.

We will discuss these conditions for effective competition in turn.

Numerous competitors. A competitive market requires sufficient numbers of significant competitors. When there are too few firms in a market (especially as few as just two or three), firms' incentives to coordinate with each other in some degree, either directly or indirectly, will often prevail over their incentives to compete independently. Some degree of coordination will often occur, even if there are also some periods of aggressive competition.

Economic research and analysis shows that a minimum of about five competitors is needed for competition to be effective.[6] The late George J. Stigler, a conservative Nobel prize–winning economist, set strict structural standards for "the existence of competition" that require numerous firms, an absence of dominance, and low market concentration. "The presence of numerous firms, none dominant in size, is directly observable and is usually described by a low concentration ratio,"[7] Stigler wrote. He also observed that, "...a large number of rivals is sufficient to achieve competition" and that "many producers" will be sufficient for "the socially optimum amount of competition."[8]

In a landmark study, Carl Kaysen and Donald F. Turner noted that, "If we wish to eliminate unreasonable market power, we must in general move toward less concentrated markets in which there are more sellers with smaller shares. An increase in the number of competitors and a decrease in the relative market positions of the larger of them is usually a sufficient condition for the reduction of market power in any market."[9] If market concentration in the largest four firms exceeds 75%, market power is "unreasonable."[10]

This theme has been reiterated in major studies up to the present. As F.M. Scherer and David Ross's leading contemporary text on industrial organization notes, "Economic theory suggests that the vigor of competition is related positively to the number of firms in the relevant industry, other things (such as the height of entry barriers) being equal."[11]

With each reduction below five firms (five to four, four to three, three to two), the incentive for firms to thwart the market through cooperation becomes relatively stronger, compared to the rewards from independent competitive actions. In fact, in most normal markets, mainstream researchers would not expect two or three firms to provide effective competition.

Absence of single-firm dominance. Effective competition also requires reasonable competitive parity among firms; such parity breeds strong mutual pressure to perform well. The opposite case is market dominance, where the biggest firm has a market share of 40-50% and has no close rival. In this case, competition is usually unbalanced and ineffective.[12]

Ease of entry. Reasonably free entry into the market and into all of its segments is also essential.[13] Easy entry permits numerous new firms to enter quickly and freely, to survive, and to acquire significant market shares when the existing firms raise prices. Impeded entry, by contrast, permits the few firms already active in the market to collude more effectively and to raise prices further.

The sequence of vigorous pressure, struggle for market share, and response is the core meaning of the competitive process;[14] it generates the competitive economic gains of minimum costs, low prices, and rapid innovation. Each competitor must achieve high efficiency and rapid innovation in order to survive.

Such strong, effective competition is widespread in the U.S. economy; it is present in over three-fourths of all markets.[15] The prevalence of these competitive markets results from innate economic forces, strong antitrust policies developed during the last century, the deregulation of many industries since 1975, and the onrush of imports since the 1960s. This open, competitive process is the mainspring of economic progress that is now once again lifting the well-being of the U.S. populace.

While competition benefits consumers and promotes economic growth and efficiency, firms naturally try to gain a dominant position and to increase their control over their rivals. Mergers often provide an easy, quick way to short circuit the market and capture a dominant market share. Moreover, they promise rapid and large jumps in stock prices. These joint benefits are the prizes that appear to have stimulated the MCI WorldCom-Sprint merger plan.

The merger of MCI WorldCom and Sprint would reverse the rise of competition that has occurred in telecommunications since the 1970s under sound antitrust and deregulation policies. Such a merger will reduce competition, and claims to the contrary must be met with extreme skepticism. The burden of proof lies with the merger's proponents, and MCI WorldCom and Sprint have yet to even remotely meet it.

Thousands of mergers occur each year that are harmless to competition and may even be pro-competitive. But society must identify and prevent the minority of mergers that eliminate competition. These mergers often egregiously violate antitrust standards, but the merging companies gamble on wriggling through the approval process by making exaggerated claims and relying on mistakes by public agencies.

Ranges of monopoly power

Pure monopoly, where just one firm controls all of the market, poses the sharpest threat to innovation and low prices.[16] In fact, a "dominant firm" with half or more of the market to itself is almost as harmful to consumer welfare as a pure monopoly. Next is "tight oligopoly," where just two to four big firms hold most of the market. Duopoly — with just two firms — is the most extreme form of tight oligopoly.

MCI WorldCom and Sprint entered the telecommunications market in the early 1970s with sophisticated support from the Federal Communications Commission (FCC) and the Justice Department's Antitrust Division. The carefully encouraged rise of these firms pushed the telecommunications sector from AT&T's virtual monopoly toward an increasingly competitive market. But now, just as market conditions are becoming competitive, these two firms are trying to stop the process and create what may be the largest duopoly in the U.S. economy. When there are only two rivals — as AT&T and a merged MCI WorldCom-Sprint would be — competition is generally weak,[17] and actual collusion or soft forms of quasi-competition often occur. The two rivals will appear to compete, often with lively advertising campaigns and catchy slogans, but the business world knows better: price is the real weapon for powerful competition. Mere image advertising and other such non-price competition often have weak effects, amounting only to a superficial semblance of real competition.

As business history amply shows, when there is a "Big Two," they often co-exist comfortably. Above all, they try to avoid sharp, unstable price competition. There may be occasional bouts of price competition from time to time — a brief "price war" or two — but these are usually intermittent and quickly abandoned.

Moreover, cutting from three to two rivals is particularly harmful to competition[18] because two firms can manage their cooperative possibilities much more completely than can three. Numbers two and three — as in this market — are usually independent, creative mavericks, and combining them eliminates the variety among their motives and skills. Moreover, the leading game-theory analysis confirms the severe impact on competition from cutting down from three to two.[19]

The economic research is validated by business experience: competition in duopoly markets is usually weak, and plays out as if the two rivals are combined in a pure monopoly. The lack of competition tends to degrade the companies' economic performance, and costs tend to become excessive, rather than tightly minimized. Even when costs are held low, the rivals do not drive their prices down to cost levels.

The quality of service tends to deteriorate, and innovations are not as fast or creative as when competition was effective.

The slow rise of moderate competition in long-distance markets

Even with three firms, long-distance markets have had only moderate competition. Prices have come down somewhat, but this drop does not prove, as AT&T, MCI WorldCom, and Sprint claim, that competition is strong. Rather, strong competition would have reduced prices faster and farther given that prices in long-distance are falling rapidly: since 1996, long-distance incremental costs have fallen by 40%, but the price of long-distance service has gone down by only 6%.[20]

Important technological innovations have come to long distance, especially from MCI WorldCom and Sprint when they were newcomers in the 1980s and early 1990s, but whether lack of competition has slowed those innovations is difficult to judge. Certainly, AT&T has consistently been slow to innovate, both in new pricing and in new technology, while Sprint, the smallest firm, now seems to be the leading innovator.

For most of the last decade and a half competition has been increasing, though rather slowly. When the courts split up AT&T in 1984, it still controlled about 95% of all long-distance activity, even though MCI WorldCom and Sprint had intrepidly entered the market in the 1970s. The two newcomers pressed ahead, gradually becoming profitable by about 1990. During the 1990s the chances for eventually having three fully comparable rivals — AT&T, MCI WorldCom, and Sprint — have improved. Sprint is still much smaller, but it has been more innovative.

A large number of other minor players have come and gone, and the new Qwest might eventually become a serious player, but with just three significant rivals the market is still well short of the five or more required for fully effective competition. And AT&T still dominates some parts of it, especially service to residential and small-business users.

Enter the RBOCs?

There were bright hopes in 1996 that the Regional Bell Operating Companies (the RBOCs) might qualify for FCC approval and then push aggressively into long-distance markets, but those hopes never came to pass. The 1996 Telecommunications Act, with its two-sided plans to develop new competition throughout the sector, is now regarded as largely ineffective, even a failure. New entry has scarcely begun. Instead, the RBOCs have chosen to fortify their local virtual monopoly positions, usually with great success. Competitors to the RBOCs are still mildly sprinkled among some larger cities in some regions. The most serious competition is in cellular phone growth at the edges of some large-city markets, but even that challenge has been at higher prices and to a specialized segment of the market.

Though wireless use is growing, it is still far from a close substitute for standard telephone service. It might become a widespread substitute — or instead, for many users, a complement — of standard wire-based service in perhaps five years, but claiming that it will soon provide effective competition to incumbent long-distance companies, as MCI WorldCom and Sprint do, is premature.

The FCC has responded so far to this lack of competition among the RBOCs by keeping all but one of them out of long-distance markets. In 1999 the FCC stretched the standards somewhat and let Bell Atlantic begin to enter long distance, but its steps have been slow. And SBC, in pressing the FCC to approve its merger with Ameritech, promised to inject major new competition in 30 big cities in areas outside its own large regions in the Midwest and Southwest. Skeptically, the FCC, in approving the merger, forced SBC to set that promise as a contractual commitment. But the 30-city new competition is still unproven and remains speculative. Meanwhile, the other RBOCs are years away from qualifying, if they ever do. These companies, therefore, are not likely to provide serious long-distance competition any time soon.

Market power and competition in long-distance markets

Against this backdrop of slow but steady progress toward effective competition, it is clear that the MCI WorldCom-Sprint merger will sharply cut competition and postpone for a decade or longer the chance that competition might become fully effective, both in long-distance markets and in the Internet "backbone" or wholesale market.

Market shares are the main measure of market power, and they show dramatically how sharply the merger will reduce competition. There are three main markets:

1. the total market, including all long-distance revenues,
2. the larger-business market, which includes the bigger, more sophisticated, and quicker-adjusting firms, and
3. the mass market, which includes all residential customers and smaller businesses.

Larger businesses usually can apply great skill and pressure in dealing with the current Big Three long-distance service providers. They often have contracts with two providers so they can play one off against the other and threaten to switch to the third. In contrast, the mass market contains small, less-experienced customers who are more passive and less able to apply buyer power. AT&T provides a good example: half of AT&T customers still pay the standard prices, even though AT&T and the other service providers offer special rate plans that are much cheaper. Such a degree of irrational customer inertia qualifies these customers as "captive"; they are not sensitive to prices, even to AT&T's own lower prices. They are also insensitive to lower prices from the small non-brand companies.[21]

In the total national market, MCI WorldCom and Sprint would combine their 24% and 12% shares into a 36% share of revenue, and AT&T would hold 43%. The remaining 21% would be held by the scores of generic non-brand fringe firms —Qwest, Frontier, IXC, Williams, Level 3, and many more — the largest of which has only 2.5% of the market. These firms are virtually unknown, limited, often regional in scope, and unable to provide significant competition to the Big Three.

In residential service, AT&T's dominance has remained strong, at a 58% market share. MCI WorldCom-Sprint's share would be smaller at 24%, but high enough to provide significant market power.

In the business long-distance voice market, the merger would give a combined MCI WorldCom-Sprint a market share of 44%, well above AT&T's 32%. In data transmission, the merger's impact would be even bigger. MCI WorldCom's 24% market share combined with Sprint's 30% would yield a total share of 54%, compared to AT&T's 40%. A merged MCI WorldCom-Sprint would instantly capture the dominant position, and the duopoly would become even more complete.

As any market share rises over 25%, the market power it embodies increases to even more substantial levels. It also specifically violates the criteria set by the two federal antitrust agencies in their *Merger Guidelines*. These guidelines use the rather complicated Hirschman-Herfindahl Index of concentration, instead of market shares and several-firm concentration ratios.[22] But by any standard, the long-distance markets are already far too concentrated, and the further rise in market share and concentration would be excessive. Moreover, in the main long-distance markets the effects of the merger on market concentration would exceed what simply adding up the shares would suggest. To the extent that the fringe generic firms cannot fully compete with the Big Three, their market shares overstate their effectiveness.

Finally, as discussed below, MCI WorldCom and Sprint are particularly close competitors, and Sprint has been the industry's maverick. Antitrust policy specifically identifies preserving the independence of the "maverick" firm as unusually important.

Entry is not free or easy

Under U.S. antitrust standards for mergers, market-share impacts as excessive as these could be ameliorated if entry into the market is so easy that MCI WorldCom-Sprint and AT&T would be afraid to raise their prices.

Instead, MCI WorldCom and Sprint have themselves proven that entry is difficult and painfully slow. It took them over 15 years — with large financial losses during at least the first five — to build up their positions. A host of other fringe competitors have also come and gone since 1984, the victims of entry barriers. Squeezed out by the Big Three, they have demonstrated that tiny non-branded firms are unlikely to make an impact on the market.

Is there a single 'all-distance' market?

MCI WorldCom and Sprint have claimed that the long-familiar local and long-distance markets have blended into one great "all-distance" market. If this is true, then the MCI WorldCom-Sprint merger would involve much lower market shares.

But the all-distance market is a fiction, a convenient new phrase that tries to deny real market conditions. The distinctions between local and long-distance markets are as strong as ever and, although new trends may begin to soften and reduce the barriers, it is a self-serving illusion to claim that they have already fallen.

From three to two is a big change

Any reduction from three rivals to two is a major drop in any market. Even dedicated free-market analysts are reluctant to claim that two-firm competition has any real strength, and they admit that dropping from three to two sharply reduces the range and intensity of competition.

The impact on competition will be even sharper in the case of a merger between MCI WorldCom and Sprint because of the special methods employed by many larger telecommunications customers. As noted above, business customers often rely on a two-supplier strategy to play off one rival against another. Such an aggressive approach works only if there are three strong competitors; with just two, a customer threatening to switch to the other supplier risks getting boxed into that sole alternative. This basic feature of business rivalry will operate with special force here.

MCI WorldCom and Sprint are the closest competitors to each other

MCI WorldCom and Sprint compete with each other more strongly than they do with AT&T or any of the small firms in the industry. Moreover, these companies' customers switch much more frequently than do AT&T customers.

That mutual sensitivity of customers reflects the two companies' history of price cutting and innovation. Responding to each other and to market leader AT&T, both MCI WorldCom and Sprint have led the innovations in price plans that occurred after 1990. Perhaps as a result, they have won a higher share of the price-sensitive customers, leaving AT&T with the lower-volume "captive" customers. Furthermore, customers switch more frequently between MCI WorldCom and Sprint than they do among other suppliers.

Sprint has been the maverick

In the 1970s and 1980s, MCI WorldCom was the cutting-edge entrant and aggressive challenger to AT&T in all long-distance markets. But in the last decade, MCI WorldCom has increasingly played the role of an established firm, eager to block any more new competition.

In the 1990s, Sprint has become unusually creative and independent. Its pricing has been distinctive — for example in 1995 with "Sprint Sense," the first flat-rate discounts to subscribers making numerous calls, and in 1999 with "Free Sundays," a pricing innovation to which neither AT&T nor MCI WorldCom has responded. Perhaps more importantly, Sprint's cellular phone network has frontally challenged AT&T's network, with pricing and service that are superior in many respects.

With this merger, the two close competitors and innovators will immediately stop their long-standing competitive rivalry. Sprint's special maverick qualities in competing with MCI WorldCom and AT&T will also be buried within MCI WorldCom.

Consumers will be harmed in predictable ways

The harms that monopoly inflicts upon consumers are well known, both from modern business experience and a century of thorough economic research. But they need to be emphasized here, because they will hit a leading economic sector with substantial force.

Higher costs and prices

The main competitive pressures on these two long-distance battlers — the rivalry between them — will be eliminated. The pace of innovation is likely to slow, as will the decline in costs across the variety of their activities. In addition, prices in the merged firm will move to higher margins above costs than are currently enjoyed by MCI WorldCom and Sprint. One economic study estimates the price increase at between 5% and 8% in various parts of the total long-distance markets.[23]

Lower service quality and variety

As a general matter, service quality tends to decline as market power rises. The firm can maximize profits by raising prices, cutting the cost and quality of service, or both. In telecommunications, service quality is a complex phenomenon, which can easily be adjusted downward in a variety of ways.

MCI has displayed such a decline in service quality since the FCC permitted it to merge with WorldCom three years ago.[24] Quality receded after the same kind of employment reductions that MCI WorldCom and Sprint plan to make following this merger.

Less innovation in service types and technology

MCI WorldCom and especially Sprint will gain by reducing their rate of innovations in services and technology, thereby ending the historic role they have played since the 1970s as the leaders in many kinds of competitive innovations. **Table 1** summarizes many of these companies' leading innovations since 1982 in the area of business services. These innovations have been beneficial to business and residential customers throughout the economy.

In the current and coming eras, the possibilities for innovation seem even larger, as the role of wireless, computers, and Internet technologies develop further. This merger would intercept that new phase, removing the incentives for a wide range of important innovations. MCI WorldCom and Sprint

TABLE 1
MCI AND SPRINT VOICE AND DATA SERVICE INNOVATIONS, 1982-99

Year	Innovation	Company
1982	First long-distance competitor of AT&T with plans for major fiber optic deployment	MCI
1983	First long-distance competitor of AT&T to extend its network into a foreign country	MCI
1986	First nationwide alternative to AT&T's 800 service	MCI
1986	First transcontinental fiber optic telephone and video circuits	US Sprint
1988	First U.S. long-distance company to offer a dedicated network for the domestic and international transmission of facsimile messages	MCI
1988	First long-distance carrier to install Signaling System 7 throughout its network	US Sprint
1989	First transatlantic fiber optic phone call	US Sprint
1990	First company to provide packet- and circuit-switched voice and data services over the same T1 access facility	US Sprint
1991	First nationwide public frame relay service	Sprint
1992	First long-distance company to introduce a Simple Network Management Protocol-based ("SNMP") frame relay network management service	MCI
1993	First U.S. long-distance carrier to offer a new high-speed, transatlantic circuit-switched bandwidth-on-demand data service	MCI
1993	First nationwide ATM service	Sprint
1995	First Frame Relay-to-Asynchronous Transfer Mode interworking service	Sprint
	First carrier committed to deploying Dense Wave Division Multiplexing in nearly 100% of its fiber miles	Sprint
1999	Remote Office: dial-on-demand service that enables corporations to connect remote office, branch locations, and outlying sales offices through a single local dial-up connection — a "unique offering in today's marketplace"	MCI WorldCom
1999	Circuit View and Circuit View Plus: advanced network management and reporting service for frame relay customers	MCI WorldCom
1999	First major telecommunications company to offer streaming, Internet-based video conferencing services	Sprint

Source: SBC, Opposition of SBC Communications Inc., FCC, CC Docket No. 99-333, p. 34, Table 4.

claim that their merger is necessary to enable them to accomplish these gains, but their argument is conjectural and unpersuasive. Such claims are standard rhetoric in mergers of this kind, but it is strange that they come from two powerful and seasoned innovators, with proven records and large resources.

Economic analysis confirms that capital markets will guarantee both MCI WorldCom and Sprint ample funds for all of their genuinely promising innovations, but the companies claim that those funds will be too skimpy. The mandates of large-scale technology force them to merge, they say, so as to achieve big size immediately. But these supposed “mandates” of bigness are actually an age-old cliche, resurrected every decade or two since the 1870s in order to give some veneer of respectability to mergers that are obviously harmful.[25] After the merger mania recedes, these mandates for bigness are always recognized to be exaggerated or simply false. Then, in the next decade or so after the mergers, a large share of them usually display signs of sickness or even failure. A majority of recent mergers have caused the companies’ stock prices to fall, punishing their own investors. Companies actually reverse over half of all mergers by voluntary divestitures.[26] MCI WorldCom and Sprint may be fortunate enough to avoid joining this series of self-harming and misguided mergers, but the odds are strong that this deal, if approved, will be regarded in retrospect as a costly mistake.

Reduction in the range of choice

Freedom of choice is a basic American value served by market competition. In a competitive market, customers have a choice among a wide variety of suppliers, many of whom are developing services and technology in new ways. If prices are excessive, customers can switch to other suppliers, thereby forcing prices down. New entrepreneurs have wide opportunities to enter markets, and established firms can move readily into new markets. Employees have a wide range of alternative jobs and employers, and investors have a range of options for maximizing returns. An MCI WorldCom-Sprint merger would greatly diminish freedom of choice for all of these groups.

Job losses

The MCI WorldCom-Sprint merger plan would also reduce jobs substantially. Though such cuts are often portrayed as an economic gain, they actually have a harmful impact. They reflect the misguided attempt to eliminate competition and future progress by each of these companies, and could result in reduced service levels for customers. If the merger is denied, the “surplus” employees will instead be fully engaged by the separate firms in mounting the companies’ future efforts at success and innovation and in maintaining and improving current service levels.

Possible justifications for the merger

Let us critique in more detail the rationale that MCI WorldCom-Sprint have offered for the merger.

Large net economic gains

MCI WorldCom and Sprint have argued that, unless the merger occurs, they will be unable to keep up in this radically changing industry, much less accomplish innovations. But suppose instead that the industry is not so chaotic, and that MCI WorldCom and Sprint are still powerful and able to get ample funding for their future ventures. Then the net gains from this merger would be substantially negative.

MCI WorldCom and Sprint's predictions of merger gains are highly speculative. They depend on three main assumptions:

- that competition within the all-distance market will be powerful, due to seismic changes and rapid entry of RBOCs;
- that MCI WorldCom and Sprint need enormous new resources for innovations and growth that they can't develop on their own; and
- that this merger will avoid the corrosive conditions that cause a majority of mergers to develop troubles or outright failure.

Only if all three assumptions prove true would the merged MCI WorldCom-Sprint create large benefits in the coming era and avoid the merger sickness that often follows these deals. However, as noted earlier, each of these assumptions is implausible. Together, they are so unlikely as to make the MCI WorldCom-Sprint claims impossible to accept.

Increased competition in local markets as a counterweight to increased concentration in long distance

MCI WorldCom and Sprint offer a Faustian bargain. As the business press immediately recognized when the companies announced the merger, the deal offers to trade a loss of competition in long-distance markets for a promised increase in competition in local markets. The loss in long-distance markets would be definite, while the increase in local markets is speculative.

Yet the concept of this trade is wrong and unacceptable. Even if both parts — the loss and the gain — were equally definite and sufficiently large, the concept of the trade is invalid. Trading away competition in one market to add it in another is bad economics, and it probably violates the antitrust laws. In fact, antitrust policy has never accepted the trade-off idea, and the FCC has already rejected it. For example, in the SBC-Ameritech merger proceeding, in which SBC promised to mount a massive program of new entry into 30 large local markets located outside its own area, the Faustian bargain was clear: if you let us eliminate substantial potential competition between SBC and Ameritech, we promise to create more local-market competition elsewhere. That was, in fact, the only significant possible net gain from that merger. The FCC did not rate the loss of potential competition as substantial, but it applied a tough-minded, skeptical evaluation to SBC's promises by making completion of the 30-market entry a make-or-break condition of permitting the merger. Whether the FCC will be able to enforce that commitment is an open question, but such enforcement difficulties would plague and perhaps prevent any parallel effort to make a merged MCI WorldCom-Sprint live up to its promises.

The principle is clear in any event. The FCC should apply sound economics by refusing to trade greater monopoly in one market for greater competition in another.

Growing competition from wireless services mitigating increased concentration in long distance

In Europe and Japan, the use of wireless phones is far ahead of U.S. levels, possibly illustrating how this one new technology could alter the market and validate MCI WorldCom-Sprint's claims.

Wireless use is indeed growing in the U.S., but its full impact will take time. So far it gives little or no fully reliable service in much of the nation, it is less secure from eavesdropping, and its pricing is complicated. For most users, wireless service is also substantially more expensive than most standard service offerings.

Accordingly, wireless service is simply not adequately substitutable for regular service for it to be considered as fully in the same market. Moreover, it may take years for these differences to fade. The strife among the several alternative technologies in the U.S. is still severe, and the resolution is still unpredictable.

Therefore, wireless remains a possible force in the future for merging long-distance and local service. It might eventually reduce the merged market shares of MCI WorldCom and Sprint to acceptable levels, but that is still many years away, and is not relevant to this merger. Moreover, the MCI WorldCom-Sprint merger poses a threat to precisely the future competitive role of wireless service. MCI WorldCom would swallow Sprint's leading wireless system, rather than develop one of its own, thereby killing immediately one of the main possibilities for new wireless competition.

In short, wireless illustrates with special clarity the longer-run competitive possibilities that this merger would eliminate.

'Seismic' changes in telecommunications from combining the two companies

MCI WorldCom and Sprint give only casual coverage to the supposedly severe and instantaneous changes that are pivotal to justifying their merger. How believable are their claims of "seismic" changes in telecommunications?

The business press covering telecommunications, a sector with a long tradition of blue-sky claims, land-rush mentality, and rousing circus hype, regularly reports the optimistic claims of businesses that announce that they are on the way to vast new changes and successes. But careful evaluation usually reduces the touted changes toward normal levels.

With regard to this merger, the reports may give the superficial impression that MCI WorldCom and Sprint's optimism has some basis. But the real changes are far less than MCI WorldCom and Sprint claim. Moreover, the merger would let MCI WorldCom-Sprint lock in a situation that could not be reversed when their predictions turn out to be false. The companies are seeking to pry open a door to monopoly effects that cannot be cured later.

The policy choices

The MCI WorldCom-Sprint merger should not be accepted as it has been proposed. It conflicts both with the antitrust laws and the 1996 Telecommunications Act, as well as with sound economic analysis.

Regulators have three main policy choices:

Deny permission for the merger

This proposal has been widely recognized from the start as a long-shot gamble. But previous FCC merger decisions have let dubious cases through (Bell Atlantic-NYNEX, SBC-Ameritech) by accepting the proponents' promises that the markets would develop new competition. Actual developments have not fully met those hopes.

By simply denying its approval, the FCC could reassert its clear determination to promote and protect competition. Anything less conclusive will invite a continuing series of such long-shot merger gambles from firms hoping that the FCC will falter or deviate from sound criteria, or simply make mistakes.

The merging partners have tried to create an illusion that the proposal fits reality and is expected to prevail. Nevertheless, business interests probably expect that the FCC will deny this shaky proposal. By rejecting the merger, the FCC will bring its policy in line with business reality as well as policy criteria.

Postpone the merger until the necessary conditions, including those claimed by MCI WorldCom and Sprint, have been realized

The FCC could withhold its approval "at this time," pending emergence of suitable conditions that would eliminate the harms. Those conditions include some that MCI WorldCom and Sprint say are already developing. The emergence of suitable conditions would require convincing evidence of the following:

- change in the sector is genuinely "radical," in the directions that MCI WorldCom and Sprint claim;
- an all-distance market has replaced long-distance and local service markets;
- long-distance services to all customers are provided under fully effective competition, with at least five comparable rivals and easy entry;
- the RBOCs have entered the long-distance market;
- local service activities are provided under effective competition;
- the merger's various gains will be large and will genuinely be net gains, unavailable from other actions;
- MCI WorldCom and Sprint are unable to achieve success and innovation on their own.

Such a merger postponement is unusual in merger policy. Generally, the merger partners demand immediate approval, because they want the profits now and are afraid that changing conditions will upset the merger's terms. The partners try to create a stampede atmosphere, condemning careful hearings as irresponsible and anti-business. In general, the more questionable the merger is, the louder the denunciations. Undue haste is on the side of questionable mergers that cannot withstand scrutiny.

But if the basis for the merger is sound, it can wait. Though the details of an eventual merger may turn out to be different from this one, the underlying favorable conditions — if they exist — will endure.

And policy officials should always remember that a merger is usually the most inferior method for achieving economic gains. If gains can be had, firms can obtain them by means of internal growth that creates new capacity. Or they may arrange long-term contracts to accomplish much the same results. Internal growth and long-term contracts meet the tests of the market. This kind of merger is instead an end-run around the market, and it reduces competition as well.

Regulators and antitrust officials should avoid approving a desperately urgent merger like this one, which appears to have only a brief period of promise. That brevity will often reflect that the merger has little or no public benefits; instead, the merger's private anti-competitive profit gains may be the exclusive motivation.

Postponement will pose one awkward paradox. Suppose that MCI WorldCom and Sprint are able to develop robust success and innovation on their own. If that were possible, then the companies may hold back from achieving that success and innovation because those good results would show that the claimed basis for their postponed merger was wrong. The better they do, the more they defeat their own merger proposal.

This paradox is only one part of the whole context of this merger, so it should not be the only consideration for the FCC. But the FCC might take it as an added reason for denying approval outright. Only then would MCI WorldCom and Sprint have unambiguous motives to achieve success, even though they now deny that they could.

Note that such a success, despite the vehement denials, would not be unusual in the history of merger policies. On many occasions, companies claimed during merger hearings that they could or would never do a variety of things, only to accomplish later just what they had earlier branded as impossible or unwanted.

Restructure the merger to prevent harm to competition

MCI WorldCom and Sprint could alter the terms of the merger in order to make it more palatable to regulators. The most obvious change would be to extract and sell off wireless activities, local service operations, and substantial Internet backbone capacity. In new hands, that capacity could preserve some of the current competition.

The specific details of such adjustments to the merger may require extensive study and complex judgments. Perhaps the best reason not to try this route would be that the surgery would be extensive. MCI WorldCom and Sprint might prefer instead to cancel the merger. Furthermore, there is a risk that the various divested parts might become economic orphans, lacking strength or viability. If so, then competition would not be preserved. In that case, denial of the merger might produce superior economic results. The two separate companies could focus on maximizing the success of what they now have.

May 2000

Endnotes

1. The danger to the Internet backbone is covered in detail in the critique by Steve Pociask and Jack Rutner, *MCI WorldCom's Sprint Toward Monopoly,* Washington, D.C.: Economic Policy Institute, April 2000. See also *Opposition of SBC Communications, Inc.,* February 18, 2000, for more extensive coverage of the industry details on long-distance markets.

2. Standard reference sources include F.M. Scherer and David Ross, *Industrial Market Structure and Economic Performance*, 3rd ed., Boston: Houghton Mifflin, 1991; William G. Shepherd, *The Economics of Industrial Organization*, 4th ed., Englewood Cliffs, N.J.: Prentice-Hall, 1997, especially chs. 1 and 3; and Alfred E. Kahn, *The Economics of Regulation,* New York: Wiley, 1971, reissued by MIT Press, 1988.

3. See the classic analyses in William J. Fellner, *Competition Among the Few,* Alfred Knopf, 1949, ch. 1; Carl Kaysen and Donald F. Turner, *Antitrust Policy: An Economic and Legal Analysis,* Harvard University Press, 1959, ch. 3; Scherer and Ross, *Industrial Market Structure and Economic Performance,* op. cit., chs. 1 and 6-8; Shepherd, *The Economics of Industrial Organization,* op. cit., chs. 1, 3, and 13; and, for recent pure theory, Jean Tirole, *The Theory of Industrial Organization*, Cambridge, Mass.: MIT Press, 1988, chs. 5-7. Various free-market theories — of the Chicago School, game theory, and "contestable-market" types — don't change those lessons. For a review of those schools of thought, see especially Shepherd, ch. 1. Even George Stigler, the Nobel-prize-winning Chicago School leader in the 1960s and 1970s, argued for "the presence of numerous competitors," in his *The Organization of Industry,* Homewood, Ill.: Irwin, 1968, p. 14. Moreover, Chicagoans generally urge the need for "hard

competition." It involves maximal efforts at all times by large numbers of firms. See Melvin Reder, "Chicago Economics: Permanence and Change," *Journal of Economic Literature,* 1982, pp. 1-38.

4. The earlier literature used to require 10 or more comparable firms, so as to make collusion quite unlikely. Under Chicago School pressure, the mainstream now has retreated to specifying only about five or more competitors, but that is an absolute minimum.

5. Although merger policies are imprecise, they usually prohibit gaining more than approximately 30% of the market by merger. See U.S. Department of Justice, *Merger Guidelines,* 1992.

6. Further confirmation comes from the antitrust agencies' own comprehensive index of market power, the Hirschman-Herfindahl Index (HHI). It is the sum of the squared market shares of the competitors. The index ranges from 10,000 for pure monopoly down to below 100 for perfect competition. Where the HHI is above the 1,800-2,000 range, the firms have significant market power. If there are five equal competitors, each with 20% of the market, the HHI is 2,000. Any fewer than five rivals, or any inequality among the five, puts the index above the threshold value of 2,000. If there are three equal competitors, the HHI is over 3,300, with high market power. Going from three to two jumps the HHI up sharply, to 5,000. That 1,600-point jump reflects the substantial rise in market power from reducing the number of competitors. The actual rises in HHI from the MCI WorldCom-Sprint merger will be in that same large range.

7. Stigler, *The Organization of Industry,* op. cit., p. 14.

8. Stigler, *The Organization of Industry,* op. cit., p. 18.

9. Kaysen and Turner, *Antitrust Policy,* op. cit., p. 79. They do note reservations about unnecessarily trying for excess precision in structural conditions. But their whole theme is the market power created when concentration in a few firms is high: "Both economic theory and experience indicate the likelihood of a monopoly problem in the structurally oligopolistic markets" (p. 25).

10. Kaysen and Turner, *Antitrust Policy,* op. cit., pp. 29-34.

11. Scherer and Ross, *Industrial Market Structure,* op. cit., p. 71. They note that a market is "oligopolistic" when firms are few and mutually interdependent; they distinguish between that and "a competitive market structure," p. 17. They also note that the mainstream literature regards tight oligopoly as involving market power.

12. See Scherer and Ross, *Industrial Market Structure,* op. cit., pp. 221-26; Donald Hay and John Vickers, *The Economics of Market Dominance,* Oxford: Basil Blackwell, 1987; and Shepherd, *The Economics of Industrial Organization,* op. cit., chs. 11 and 12.

13. See especially Joe S. Bain, *Barriers to New Competition,* op. cit; Joe S. Bain and H. Michael Mann, "Seller Concentration, Barriers to Entry, and Rates of Return in 30 Industries, 1950-1960," *Review of Economics and Statistics,* August 1966, pp. 296-307.

14. The process of mutual strife and pressure is common to all schools of thought about competition. They include mainstream analysis, the free-market Chicago School, Schumpeterians, game theorists, and others.

15. See William G. Shepherd, "Causes of Increased Competition in the U.S. Economy, 1939-1980," *Review of Economics and Statistics,* November 1982, pp. 25-37.

16. On these various market types, see for example Shepherd, *The Economics of Industrial Organization,* op. cit., chs. 1-4; Scherer and Ross, *Industrial Market Structure and Economic Performance, op. cit.,* chapters 1-3; Joe S. Bain, *Industrial Organization*, 2d ed., New York: Wiley, 1967; and George J. Stigler, *The Organization of Industry, op. cit.*

17. This emerges from the empirical literature, as in Scherer and Ross, *Industrial Market Structure,* op. cit., ch. 11; and Shepherd, *The Economics of Industrial Organization*, op. cit., ch. 4. Leonard Weiss's compendium also shows it clearly; see Leonard W. Weiss, ed., *Concentration and Price,* MIT Press, 1989. See also Fellner, *Competition Among the Few,* op. cit.; Richard Schmalensee and Robert D. Willig, eds., *Handbook of Industrial Organization,* Cambridge, Mass.: MIT Press, 1988; and Bain, *Industrial Organization*, op. cit.

18. The danger to competition from cutting down to small numbers is particularly stressed by George Stigler's early 1960s pathbreaking analysis of oligopoly. See Stigler, "The Theory of Oligopoly," *Journal of Political Economy,* 72 (February 1964), pp. 44-61. Price cutting can be quickly exposed and punished when rivals are few. The shift from three to two causes a large drop in competition and a large rise in the effectiveness of abilities to apply collusive behavior.

19. In tacit collusion under pure duopoly, price cheating doubles a firm's market share. But when there are three firms, the cheating triples the share. Hence, the three-firm situation is much more unstable and prone to price cutting and competition than is the two-firm case. See Tirole, *The Theory of Industrial Organization*, op. cit.

20. These contrasts in cost and price are noted in CWA, *Petition to Deny or Impose Conditions of Communications Workers of America,* FCC, CC Docket No. 99-333, pp. 18-19. Price is indicated by the consumer price index for long-distance services.

21. SBC's statement in opposition to the merger notes that a study by Dennis W. Carlton and Hal S. Sider found that 95% of AT&T's residential customers stay with AT&T even when Excel, Qwest, or Frontier offer lower rates. See *Opposition of SBC Communications Inc.,* FCC, CC Docket No. 99-333, p. 13.

22. These concentration indicators are discussed, for example, in Shepherd, *The Economics of Industrial Organization,* op. cit., ch. 3; see also the *Merger Guidelines* issued by the Antitrust Division of the U.S. Department of Justice and the U.S. Federal Trade Commission, Washington, D.C. The latest revised version was published in 1992.

23. Declaration by Jerry Hausman in the SBC *Opposition,* FCC, CC Docket No. 99-333, at pp. 10-11. Hausman is a leading researcher on practical measures of price elasticities and price sensitivity, in telecommunications and numerous other markets.

24. See CWA, *Petition to Deny or Impose Conditions,* op. cit., pp. 40-44.

25. Claims of this type were prominent during the 1890s-1901 merger wave and then again during the 1920s stock-market craze. They recurred during the 1950s "bigger is better" period of large-corporation supremacy. They were repeated yet again during the 1960s merger booms in the U.S. and Europe, when the "American challenge" was wrongly claimed to require giant scale in Europe. Once more, the supposed magic of bigness was extolled authoritatively during the 1980s Reagan-era flood of mergers. Since 1990 it has been the reigning mantra of hundreds of unprecedentedly large mergers during the 1990s merger mania that still continues to grow.

26. See for example David J. Ravenscraft and F.M. Scherer, *Mergers, Sell-Offs and Economic Efficiency,* Washington, D.C: Brookings Institution, 1987.