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TELECOMMUNICATIONS

Cellular Service Competition

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Mr. Chairman and Members of the Committee:

We appreciate this opportunity to discuss the competitiveness of the cellular telephone service industry. Cellular phone service is one of the fastest-growing segments of the telecommunications industry. Since the industry's inception in the early 1980s, annual cellular phone service revenues in the United States have grown to nearly $7 billion and over 10 million subscribers pay over $68 per month for service. Under current Federal Communications Commission (FCC) rules, no more than two cellular carriers may operate in each geographic market area. To address questions about the cellular marketplace, Senator Harry Reid asked us to examine the competitive structure of the industry and to determine whether FCC's policies ensure the availability of cellular services at competitive prices. This testimony is based on our July 1992 report to Senator Reid on these issues.[1]

In summary, we found the following:

-- A market in which only two firms provide a product or service--like the cellular market--is unlikely to have competitive prices because the firms may have incentive to recognize their interdependence and maintain prices above the competitive level. In addition, when market entry is restricted and adequate substitutes for the product or service are not available, the likelihood increases that prices will be above the competitive level.

-- Resellers buy blocks of cellular service at wholesale rates from the two licensed carriers in a market and then repackage and sell the service to consumers. Because the

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[1]Telecommunications: Concerns About Competition in the Cellular Telephone Service Industry (GAO/RCED-92-220, July 1, 1992).

resellers do not own or operate cellular systems under the current market structure, they do not compete with the carriers at the wholesale level. Consequently, the resellers' presence in a market will not generally lead to lower rates for consumers.

-- FCC has not periodically obtained cost and pricing data to evaluate the profitability of the industry. The available data on costs and prices in the cellular marketplace have been too limited for FCC to determine whether prices for cellular services are competitive. Because of the potential for noncompetitive behavior in this type of market, the industry may need further examination.

-- States have authority to regulate intrastate cellular rates. California, the state with the largest cellular service market, has some regulation of cellular service. The California Public Utilities Commission reported in an August 1989 study that prices of cellular service in the California markets were generally much higher than costs but decided in a June 1990 interim decision not to regulate prices.

-- Emerging technologies that provide service similar to cellular service may improve the competitive structure of the industry if they are furnished by firms other than those already providing cellular service in a given market. However, controversies over the source of the scarce spectrum to support these technologies and the method of licensing the providers of these new communications services may delay their introduction into the marketplace.

In our July 1992 report we made recommendations to FCC that are designed to (1) enhance competition in the cellular service

industry and (2) facilitate an evaluation of the industry's competitiveness if increased competition is not forthcoming.

BACKGROUND

FCC administers the allocation and use of the electromagnetic spectrum (radio waves) for all nonfederal users--including the radio spectrum used by cellular telephones--and it licenses cellular carriers to use specific spectrum frequencies.[2] In 1981, FCC authorized the licensing of two carriers in each market to build facilities and offer cellular telephone service. Typically, one license went to the existing local telephone company and one to an applicant not affiliated with the local telephone company. FCC allocated the use of the radio spectrum to the two licensed carriers, which in turn invested the capital to build, operate, and maintain cellular systems. In late 1983, the first cellular telephone systems began operating commercially in the Washington, D.C./Baltimore, Maryland, area and in Chicago, Illinois. Currently, licensed carriers operate in all 734 urban and rural geographic market areas designated by FCC.

Licensed carriers sell cellular services directly to consumers, or they hire independent agents to obtain subscribers on a commission basis. Also, FCC allows an unlimited number of firms, called resellers, to buy blocks of cellular phone numbers from carriers at wholesale prices to sell to consumers at retail prices. In effect, resellers become their customers' cellular phone company, handling billing and services, while the licensed carrier operates and maintains the system.

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[2]The National Telecommunications and Information Administration, in the Department of Commerce, allocates the radio spectrum assigned to federal users.

CURRENT MARKET STRUCTURE MAY PROVIDE ONLY LIMITED COMPETITION

The two-carrier (duopoly) market system that FCC created may not provide significant competition in cellular markets. In any duopoly market, adequate competition is a concern because producers are likely to recognize their interdependence and may be able to maintain prices above the competitive level. In general, the fewer the number of producers, the less likely that pricing will be competitive.

In addition, the following characteristics of the cellular marketplace may reduce competition:

-- Although one carrier may have a somewhat larger service area or offer somewhat better service, few significant differences in quality exist among cellular carriers. Economic theory indicates that similarity in product quality may facilitate noncompetitive behavior.

-- The cellular industry is a duopoly not because of market forces but because FCC established this market structure and continues to restrict market entry. The more freely new firms can enter a market, the more difficult it becomes to maintain noncompetitive pricing practices. Noncompetitive behavior is more likely to occur in a restricted-entry industry than in an open-entry industry.

-- Because licenses for cellular service may be sold by the original licensee--and many have been--a carrier may find that its competitor in one market is also its competitor in several other markets. Moreover, where licenses have been sold to carriers in partnership, competitors in one market may be partners in another market. This pattern of

ownership may facilitate the type of interdependence among competitors that is conducive to noncompetitive behavior.

-- Currently, many analysts believe that no adequate substitutes exist for cellular service. Lack of adequate substitutes for a given product or service makes it easier for firms to maintain prices above the competitive level because consumers have no alternatives. If the consumer wants the particular product or service and there are few adequate substitutes, price becomes less important in the buying decision.

When it set up cellular markets in the early 1980s, FCC required cellular carriers to sell to resellers on a nondiscriminatory basis. Although FCC recognized the resellers' potential to enhance competition at the retail level, it was uncertain whether the inclusion of resellers in the market would either diversify service or lower prices.

The resellers' costs are, for the most part, controlled by the carriers from which the service is purchased. The resellers do not compete directly with carriers at the wholesale level and their presence does not alter the industry's duopoly market structure. Hence, their presence in a market cannot deter licensed carriers from exercising market power, and it generally does not lead to lower prices for consumers.

THE COMPETITIVENESS AND PROFITABILITY OF THE CELLULAR INDUSTRY ARE NOT BEING EVALUATED

Profitability is a critical criterion for evaluating whether an industry's prices are set at or near competitive levels. However, a firm's profits in the cellular phone service industry stem from both access to the radio spectrum and market power. The radio spectrum that FCC allocated to cellular carriers is a scarce

and valuable resource, and a portion of carriers' profits are probably attributable to control of this resource. Some analysts contend that, from a public policy perspective, it might have been preferable for taxpayers rather than private firms to reap the return from this scarce public resource. However, FCC currently licenses, and hence allocates, spectrum generally through either comparative hearings or lotteries--neither of which provide the government, and thus taxpayers, with a financial return for the allocated spectrum.

The source of the profits notwithstanding, determining profitability may be an appropriate first step in assessing the reasonableness of prices for cellular service. However, neither FCC nor the states currently have any system in place to regularly obtain sufficient evidence to determine the profitability of cellular carriers. States have the authority to regulate intrastate cellular service rates, but during our review we found no evidence that any states required carriers periodically to submit financial data for the purpose of determining whether cost-based pricing regulation should be imposed. At the time of our study, according to public utility officials from the six most populous states, cellular was not an essential service, and the industry was sufficiently competitive, so traditional public utility regulation was not necessary.[3] However, in October 1992 California's Public Utilities Commission ordered that cellular carriers semiannually submit financial data for review. The order was stayed pending rehearing.

According to agency officials, FCC has the authority to regulate interstate but not intrastate cellular rates. However, FCC does not collect revenue, cost, and other data from cellular carriers. As part of ongoing industry monitoring, FCC, among other

[3]We consulted with officials from California, Florida, Illinois, New York, Pennsylvania, and Texas.

things, reviews complaints filed against carriers, responds to petitions for rulemaking, and adopts or modifies rules as needed. In addition, FCC says that it reviews all applications for and transfers of licenses to ensure that the public interest, convenience, and necessity are served. FCC acknowledged that, in the absence of evidence such as price and cost data, it is difficult to conclude that the cellular service industry is fully competitive. FCC believes that concerns about the lack of sufficient competition in the cellular service industry should be resolved through the introduction of new personal communication services in the near future.

During our review, we examined data on retail prices that licensed carriers charged for cellular service in the 30 largest cellular phone markets between 1985 and 1991. We obtained the unverified data from a consulting firm, which was the only source we were able to identify that had compiled industry data of this type. According to these data, average prices were fairly constant over the period. However, when inflation was taken into account, there were real price decreases of about 27 percent on average across the 30 largest markets. In about two-thirds of the markets, the best available prices between the two carriers were very close and often nearly identical for a given package of cellular services. In about one-third of the markets, prices differed by more than 10 percent--with an average difference of 22.4 percent. However, even in markets where prices were nearly identical, additional information would be needed to conclude that noncompetitive pricing practices had occurred.

Our review included the four largest markets in California. We found that, on average, California prices were about 31 percent above those of other markets. Our data also showed that the average price difference, if any, varied no more than about 3 percent between the two carriers in these markets.

Although cash flows have been negative for many cellular carriers because of large initial capital outlays, FCC and others contend that the industry will be very profitable in the future. For example,

-- According to a 1989 report by the California Public Utilities Commission, which analyzed 1988 data for 14 of its licensed cellular carriers, the average return on sales for wholesale operations was 31 percent and the average return on sales for all operations was 15 percent. The average return on equity reported by these carriers was a very healthy 24.5 percent.

-- The California-based Cellular Resellers' Association's analysis of the financial performance of the cellular carriers in Los Angeles, San Diego, and San Francisco/San Jose showed wholesale investment returns of between 25.3 percent and 123.1 percent in 1988.

-- Stock analysts, optimistic about the future of the industry, report that growth of cellular cash flow and earnings should be robust over the next decade and that stock values should appreciate substantially in the long run.

Finally, the value of cellular licenses as represented by sales transactions indicates the high expected value of these firms. Several analysts have noted that the prices of licenses sold divided by the total population of the market area have increased considerably since cellular systems first went on line. For example, some systems recently sold for over $200 per person in the market area. More importantly, analysts believe that these prices are considerably greater than the actual replacement cost of the firms' assets. Analysts attribute these high prices to, among other things, the expectation of future earnings.

EMERGING SERVICES HAVE POTENTIAL TO ENHANCE COMPETITION

Today's personal communications services--paging devices and cellular phones--will soon be joined by new services that share certain characteristics with cellular service and use both existing and new telecommunications technologies. For example, digital cordless telephone radio networks are essentially self-contained services that will use inexpensive, pocket-sized terminals, intelligent networks, and smart cards, and they will be capable of voice, data, and image transmission. As technologies advance and this and other new services that provide a function similar to cellular service are brought to the marketplace, competitiveness in the cellular industry may improve.

FCC is currently developing regulatory policies for implementing the new services. As part of this process, FCC invited comments on a wide range of issues, including whether restrictions on license eligibility are needed. FCC has acknowledged that potential problems and benefits may result if it licenses carriers for new services in a market where they are licensed cellular carriers. However, FCC officials told us that if any restrictions are placed on granting additional licenses to existing carriers, the existing carriers would be able to use their current spectrum allocation for other mobile services, including some personal communications services. We continue to support giving first preference to firms that are not current cellular providers in a given market area in order to increase the number of sources available to consumers and thereby encourage carriers to lower their prices. FCC is currently analyzing comments received on its proposals to provide additional spectrum for personal communications services. It is not clear when FCC will make a final decision on these proposals.

FCC has also begun what it calls a "pioneer preference" program to ensure that innovators have an opportunity to participate either in new services that they develop or in existing services that incorporate new technologies. This program should foster the formation of new services, but it could guarantee licenses to existing cellular carriers if they develop the new services. FCC has made 3 tentative selections under this program and one of the firms tentatively selected proposes to operate in the San Diego area. In addition, FCC approved a proposal by Fleet Call to develop specialized mobile radio systems in the congested cellular markets of Chicago, Dallas, Houston, Los Angeles, New York, and San Francisco. The new service, which may be available in Los Angeles as early as this August, will be similar to cellular service within the immediate market. Fleet Call and Dispatch Communications, Inc., the nation's second and third largest specialized mobile radio system operators, respectively, have recently announced a merger of their firms. Such a merger would result in coverage of about 70 metropolitan service areas. Fleet Call sees this as an opportunity to be the third major provider of mobile phone services, in direct competition with the cellular carriers, in these markets. In California, the Los Angeles and San Francisco markets, as defined by Fleet Call, comprise 82 percent of the state's population.

SOURCE OF SPECTRUM MAY PRESENT MAJOR HURDLE FOR NEW TECHNOLOGIES

Besides Fleet Call's initiative, FCC expects other new services with new providers to begin competing in the cellular marketplace in the near future. However, the scarcity of radio spectrum presents major obstacles that may delay introduction of the new services. Virtually all of the spectrum that is suitable for these services has already been allocated. In January 1992, FCC proposed using 220 megahertz of spectrum that had been allocated for other purposes for emerging telecommunications

technologies. During June 1992 hearings before the United States Senate Committee on Commerce, Science, and Transportation, incumbent users of the frequencies asked FCC to suspend the proposal. These users--railroads, electric cooperatives, and others--have expressed strong concern about the disruption to safe and reliable rail transportation and electrical power services that could result from reallocating the radio frequencies that they use. FCC released the report and order on the reallocation in October. A notice of proposed rulemaking on how the transition will be accomplished has been released for comments, which are due tomorrow. FCC noted that taking spectrum from other purposes and reserving it for new services will enable FCC to decide upon frequencies for new applications in an orderly manner, without having to go through a difficult and time-consuming spectrum reallocation each time a new service is introduced.

During the last Congress, several bills were introduced but not passed to auction spectrum for the new services to the highest bidder rather than to allocate it without charge. Some of these bills would have amended the Communications Act by adding a provision authorizing the use of competitive bidding (auction) for awarding all licenses. Controversies over the source of the spectrum and whether to charge for the spectrum allocation could delay the introduction of new services, thereby delaying the introduction of new competition to cellular service. Consequently, we believed that FCC needed to consider interim steps for monitoring competitive conditions in the industry to protect consumers' interests.

CONCLUSIONS

In summary, Mr. Chairman, our work has shown that the existing two-carrier cellular telephone service market structure may produce only limited competition. Because of this structure and entry restrictions, resellers cannot be expected to compete with carriers

at the wholesale level. In the past, neither FCC nor states gathered the data needed to determine whether cellular service prices are competitive. However, California proposes to collect such data. Emerging developments in cellular and similar technologies may solve some of the concerns with the existing cellular market structure. Indeed, FCC is relying on new services from new sources to increase competitiveness in the cellular marketplace. We hope that this will occur. However, FCC must first overcome obstacles, including the equitable and safe reallocation of radio spectrum, which could significantly delay the introduction of the new services. If such delays occur, other actions may be needed to protect consumers' interests. Therefore, our July 1992 report recommended that if the new services are not available within the time frames that FCC currently envisions, FCC should begin evaluating the status and development of competition in the cellular service industry. As a first step, FCC could obtain data necessary to begin assessing the profitability of carriers operating in the 30 largest markets.

FCC's approval of Fleet Call in six frequency-congested markets should guarantee a new competitor in these markets. FCC's new service-licensing rules and pioneer preference program offer further potential for competition. However, it is not yet known whether additional carriers or the existing cellular carriers will provide new services in most of the markets across the country. Our report recommends that, in granting licenses and allocating spectrum for the new communication services, FCC consider establishing a policy that gives first preference to firms that are not current cellular providers in a given market, particularly if only one new license is granted in the market. However, when FCC may determine that a current cellular carrier is the most appropriate provider of the new service, FCC should ensure that the benefits of licensing that carrier outweigh the benefits of enhancing competition. FCC's December 24, 1992, response to our report is silent on this recommendation. The Chairman did say that

it is difficult to conclude that the cellular market is fully competitive. He added that, at a later time, depending on the outcome of FCC's personal communication services rulemaking--and the emergence of other competitive services and their effect on the cellular marketplace--obtaining revenue, cost, and other data on the 30 largest cellular markets, as we had recommended, could be beneficial in evaluating the competitiveness of the cellular service industry.

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Mr. Chairman, this concludes my prepared statement. I would be happy to answer any questions.

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