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OPPORTUNITIES FOR LOCAL EXCHANGE COMPETITION ARE GREATLY EXAGGERATED

*George S. Ford**

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[*20] On February 8, 1996, President Bill Clinton signed into law what many thought to be the most important legislative action in the history of telecommunications policy—the Telecommunications Act of 1996.

Immediately thereafter, policymakers, trade press and many in the private sector optimistically prognosticated a radical, near mystical, transformation of the local exchange telecommunications market from its present state of monopoly to competition. Their banter was seductive: residential and small business consumers will have choice in who provides their local telephone service; the benefits of competition were coming to the last vestige of the monopoly Bell System; and competition, rather than monopoly, would now stretch from household to household.

This unbridled optimism is quickly being replaced by a pervasive sense of failure. The Act “is not working particularly well” and is “working slowly,” proclaimed new FCC Commissioners Michael Powell and Gloria Tristani. AT&T and MCI, probably the most likely competitors to the monopoly local phone companies, have both scaled back substantially their residential local-entry efforts, joining the cable television and electric utility industries on the sidelines. Save incumbent firms and their representatives, everyone would agree that residential and small business consumers have no more choice regarding who provides their local phone service than they did prior to February of 1996. Indeed, they have no choice at all.

* Senior Economist, MCI Telecommunications Corporation; Affiliated Scholar, Auburn Policy Research Center, Auburn University; Adjunct Fellow, Phoenix Center for Advanced Legal and Economic Public Policy Studies. The analysis and conclusions of this paper represent those of the author and do not necessarily reflect the views of MCI Telecommunications Corporation, its staff, or its subsidiaries, the Auburn Policy Research, its staff, or its sponsors, or the views of the Phoenix Center, its staff, Adjunct Fellows or Editorial Advisory Board. Comments on the paper can be directed to George S. Ford, 1801 Pennsylvania Ave. NW, Suite 428, Washington, DC, 20006 or email at gford@his.com.

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One explanation for the failure of the Act is that an important intermediate step between monopoly and competition has been overlooked. If consumers are to have a choice in local phone markets, the entry of new firms selling local telecommunications services to a broad base of residential and small business consumers is required. "Choice" in any context implies alternatives. In fact, while the term "competition" has become somewhat synonymous with the Act, the Act is really much less about competition than it is about competitive entry.

An act of Congress cannot force firms to compete, but can alter industry structure in such a way as to make entry profitable and, therefore, viable competition more likely. For example, legislation that reduces entry barriers can increase the number of firms in an industry, and the presence of many firms selling similar products and services will inevitably lead to price and quality competition. Without entry, however, competition in the local exchange market will remain nothing more than a fabrication of incumbent monopolists and their representatives.

Economics of entry

The economic principles of the entry process can be encapsulated in four basic rules.

- **Rule 1: A potential entrant will enter a market** only if it expects to make a positive post-entry profit. In other words, adding local exchange services to a firm's current product mix must be a sensible business decision, whether that mix includes interexchange service, video entertainment, electricity, gas or sandwiches. Consider the prospects for entry in the state of Florida where local phone service is priced at about \$10.60 per month. The unbundled loop in the state, a required input to offer a competitive local phone service, is \$18 per month making the retail price for local service 40 percent less than the entrant's cost for one of many inputs necessary to produce a competitive local service. Even if the entrant were to simply resell the service of the incumbent, the 22 percent discount in Florida provides the entrant just more than \$2 (assuming the entrant does not discount off the incumbent's price) to cover its own costs including marketing, billing or overhead (among others). The prospects for entry and

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competition in Florida's residential markets are indeed grim. The prospects for entry in other states are not much better, and in some cases, worse.

- **Rule 2: Providing local exchange services** will require firms to incur substantial upfront investments in physical plant and advertising, a great deal of which will be irrecoverable if exit is required. These irrecoverable costs are called sunk costs and are akin to a nonrefundable deposit made at entry. If a firm must plunk down millions in sunk costs to enter a market, the firm must be reasonably certain that future profits will be sufficient to cover these costs. The considerable sunk investments required to construct local distribution networks, whether telephony, cable or electricity, are without question. Recognizing that the sunk cost characteristics of the local phone market would retard entry, Congress attempted to spur entry by making available to entrants the existing network of incumbent local exchange companies. By reselling the incumbent's services or patching together a network using unbundled network elements, entry costs can be substantially reduced and the prospects for near-term competition enhanced. The flaws with this approach were its reliance on the cooperation of incumbent local phone companies and the ability of regulators to appropriately price unbundled network elements. As the previous paragraph and subsequent text explains, these are not minor flaws—they are fatal.
- **Rule 3: Incumbent firms, by nature of their position in the market,** can strategically raise the entry costs of potential entrants. For example, if potential entrants must match the advertising expenditures of an incumbent, the incumbent can deter entry by spending large amounts on advertising. Since regulation and litigation can be potent sources of entry costs, one should not be surprised to find incumbent firms using regulation and litigation as an entry deterrent. As long as the incumbent protects more profits than it spends on deterrence, entry deterrence is a profitable undertaking. One particularly effective entry deterring strategy is to levy large fees on the entrant for acquiring customers or constructing local telephone network. With the approval of state regulators, incumbent local phone companies have managed to do just that. In California, for example, acquiring a customer requires

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the entrant to make a one-time, nonrefundable payment to the incumbent of about \$400. Acquiring 1,000 customers, a trivial 0.01 percent market share in California, would cost the entrant \$400,000 in nonrefundable payments to the incumbent. Perhaps even more problematic are the high nonrecurring charges for co-location space in the incumbent's central office. These payments, nonrefundable on exit of the industry, are in most states hundreds of thousands of dollars. In New York, for example, 100 square feet of co-location space can require a nonrefundable payment of around \$1 million. Even in the less densely populated Southern states, nonrecurring charges for co-location space can exceed \$300,000. With a 10 percent market share in an average central office, a payment of this size costs the entrant roughly \$5 per customer per month.

- **Rule 4: Some firms are better suited than others** to enter certain markets, since a firm's existing assets may be useful in a related market—providing a natural spillover opportunity. It is no accident that many consider the interexchange carriers, cable companies and electric utilities to be the most likely potential entrants to the local exchange market. The firms in these industries have assets that are useful in providing local exchange services, lowering their entry costs relative to other firms. For example, the electric utility's low-cost access to rights-of-way is a substantial spillover. Many believe the interexchange carriers' brand recognition and customer satisfaction levels represent a considerable threat to the local phone monopoly. In fact, one reason the incumbent local monopolists are so bent on entering the low margin long-distance business is to reduce the ability of an interexchange carrier to leverage its existing customer base into local markets. Southern New England Telephone's (SNET) acquisition of a 30 percent market share in only a couple of years has lowered the interexchange carriers' customer base spillover by roughly one-third. Fortunately, at least for those hoping for entry in local markets, SNET's relatively high prices have managed to attract mostly low value customers, making the reduction in the spillover less traumatic.

The condition that must be satisfied for entry to occur—the entry condition—is that expected profits be large enough to cover sunk entry costs offset by any spillovers, represented as:

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The entry condition

These four basic rules of entry can be summarized by what is termed the entry condition. To avoid numerical specificity:

- **d** = post-entry profit (Rule 1);
- **x** = inherent entry costs (Rule 2);
- **e** = incumbent or regulation-induced entry costs (Rule 3); and
- **s** = spillover effects (Rule 4).

$$\mathbf{d - x - e + s > 0}$$

A numerical example might be helpful. Assume that a potential entrant expects to **[*21]** make a profit of \$100 (d) by entering a market. If entry requires an irrecoverable investment of \$101 (x), the entrant will not enter, written as:

$$\mathbf{\$100 - 101 < 0}$$

Alternatively, if a specific firm can use its existing assets (s) to reduce those entry costs by \$20, then it can enter where other firms cannot, shown as:

$$\mathbf{\$100 - 101 + 20 > 0}$$

If the investment is only \$50 and spillovers are zero, entry will occur, shown as:

$$\mathbf{\$100 - 50 > 0}$$

However, entry will not occur if the incumbent can manage to increase the entry costs (e) by an additional \$51, written as:

$$\mathbf{\$100 - 50 - 51 < 0}$$

Reality check

The entry condition points out a glaring fallacy in many predictions about the future of competition in local phone markets, and to some extent,

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utilities markets (cable television, telephony, electric, and gas). If entry costs are large relative to the total market size, only a limited number of firms can profitably enter and compete in a market since total industry profits can cover the entry costs of only a limited number of firms.

Further, as the number of firms increases in a market the expected profit of the next entrant declines while entry costs do not. It follows that the number of firms in a market is limited by the toughness of price competition in that market. Third, telephone and power industries are heavily regulated, and regulation can be an effective tool for raising entry costs.

Other than debunking the myth that competition in local markets is imminent, perhaps the most important prediction of the entry condition is that entry is more likely where expected post-entry profits are large relative to entry costs and not simply large in absolute terms. Entry into a given market may render high expected profits, yet entry does not occur because entry costs are even larger, represented as:

$$d < x + e$$

Switched access markets are an excellent example. Financial analysts have described the switched access business as the “one of the highest margin legal businesses in the United States,” yet only limited entry in that market has occurred. High profits are indeed attractive, but access to those profits may be costly. Indeed, the presence of long-lived high profits often indicates high entry costs. Alternatively, reselling long-distance service offers only the smallest of profit margins, but the entry costs are extremely small and the incentive and ability of incumbents to deter entry absent. It should be no surprise, therefore, that there are hundreds of long-distance resellers.

Economic limitations on the number of the firms in an industry may seem discouraging to those hoping to make a fortune in telecommunications markets. The fact, however, is that it is only discouraging for those firms that are not one of the few that make the cut. Being one of two firms selling a service that virtually every household and small business in this country purchases monthly is an excellent business proposition. Becoming one of a few competitors requires firms to find the optimal mix of high-entry costs and spillovers. For example, assume that

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all potential entrants face high-entry costs, but one potential entrant has a sizeable spillover. Depending on the size of the entry costs, it is possible that entry is precluded for all but that one firm. If entry costs do not necessarily preclude the entry of other firms, it is likely that even the smallest of competitive price cuts will ensure subsequent entry is checked. If so, the number of firms competing for the patronage of customers will be small and, as economic theory suggests, profits relatively high.

A true model

Alternatively, consider a market with low -entry costs. In these markets, there will be a large number of entrants, considerable price competition and low profit margins. For example, “bill bundling” is neither a terribly expensive or difficult task, implying there will be a large number of firms with low profits performing it. In addition, nonfacilities-based “bundlers” will likely face cost disadvantages and be forced to charge higher prices. While some customers will pay higher prices for more convenience, the best communications and media customers are relatively price sensitive, preferring multiple bills to higher prices. In sum, a more sober analysis of the economics of entry implies that the claims of widespread, near-term competition in local phone markets have been grossly exaggerated. The provisions of the Act intended to spur competitive entry have been made impotent by regulatory failure and incumbent resistance. While the substantial spillovers of a few potential entrants may be able to overcome both the intrinsic and artificial entry barriers so prevalent in local markets, regulators and analysts are being forced to adopt a less zealous model of market change.