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THE ROLE OF ANTITRUST IN A DEREGULATED ENVIRONMENT\*

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## EXECUTIVE SUMMARY

In recent years the extent of regulation has been lessened in a number of industries, including among others airlines, stockbrokers, railroads, telephones, cable television, and hydrocarbon producers. This trend toward deregulation can be expected to continue in these industries, and extended in others, such as motor carriage. Deregulation measures alone cannot guarantee that markets will perform in a competitive fashion. Thus, an increased reliance on antitrust policy is inevitable.

This paper focuses on new trends and problems that will confront antitrust enforcers as a result of deregulation. It emphasizes those problems that are either new or take on more significance because of deregulation, rather than reiterating well known problems often treated in a number of textbooks on antitrust. We draw numerous examples from industries most likely to be affected by deregulation. Since no single form of deregulation can be viewed as typical, the role of antitrust will vary from one industry to another.

If any single theme has emerged as dominant, it is this: The most complex problems will arise in those industries in which deregulation is partial. In these cases, the social control of an industry creates policy problems that may find neither mutual exclusion nor collective exhaustion in the course of regulation and

antitrust. In short, there is a danger that regulators and antitrust enforcers will fight over jurisdiction in some important matters, while other important problems receive the attention of neither.

We have pointed to a number of areas in which this uncomfortable possibility may occur. First, who will scrutinize the price at which one firm sells goods or services to an affiliated firm, especially when only one of the firms is regulated? Second, who will determine when a price in a regulated market is predatory or otherwise anticompetitive, particularly if the firm charging that price also serves a regulated market? Third, what will be the boundary of antitrust immunity? Fourth, under what conditions will a merger involving a firm serving both regulated and unregulated markets be allowed, and who specifies these conditions? And fifth, who will decide when a refusal to serve is illegal, particularly if the sale in question involves both regulated and unregulated firms? In the text we have suggested circumstances in selected industries under which each of these dilemmas might actually occur.

Whether deregulation is partial or not, the first task of antitrust enforcers will be to determine whether structural change is required to prevent the exercise of unchecked economic power by firms now unaccountable to regulators. Structural change may be necessary to foster competitive markets, particularly where regulation has created highly concentrated markets. Antitrust enforcers must expect two new types of defense: (1) that the large market shares for which structural relief is sought was thrust upon existing firms by regulators, and (2) that structural relief

is unnecessary, since deregulation will by itself naturally erode the market shares of larger firms.

We have also emphasized that antitrust enforcement will encounter a number of practices antithetic to the creation and maintenance of competitive markets, practices that are deeply ingrained in the fabric of the industries being deregulated. It will not be easy for antitrust to overcome the inertia of decades of sanctioned collusion and monopoly. Some of the institutions at the heart of the regulated system must be eliminated with deregulation, including domestic rate bureaus in transportation industries where price and entry are decontrolled. Even then antitrust enforcers must watch closely to ensure that behavior is independent, especially where other institutions, such as international conferences, continue to exist.

Finally, antitrust enforcers must constantly watch for any obstacles that impede free entry where free entry is desirable. Deregulation by fiat does not guarantee free entry in fact.

## 1. INTRODUCTION

In recent years there has been a wave of effort to lessen the extent to which certain industries have been regulated. The broad label applied to this movement is deregulation. It has affected airlines, stockbrokers, railroads, motor carriers, telephone companies, cable television and hydrocarbon producers, among other industries. To date deregulation has been widely implemented in some industries (e.g., stockbrokerage), and quite limited in others (e.g., railroads). It has been formalized in some cases (e.g., natural gas), and only proposed in others (e.g., motor carriers). In short, there is no single form or extent of deregulation that can truly be called typical.

In the United States antitrust and regulation are two very important policy instruments for controlling industries that do not perform well absent government intervention.<sup>1</sup> Where intervention is required, the tools of antitrust are typically the first selected if competitive markets can be forged with their use. Where that is not possible, regulation provides a second line of control.

While deregulation may result in a number of benefits, it may not always lead to the initiation and maintenance of effective competition. New and innovative approaches to antitrust may be required, even in those areas of antitrust that are rather traditional in presently unregulated sectors.

This question becomes even more important when one realizes that virtually every major aspect of regulation is antithetic to antitrust policy. Under some forms of regulation, firms meet through institutions such as rate bureaus to discuss tariff proposals openly. They also often agree to market sharing or market splitting arrangements for which they seek regulatory sanction. They have frequently sought and received permission to effect mergers that would most surely not have been allowed in unregulated markets.

These kinds of interfirm activities are well entrenched after decades of regulation. With deregulation, antitrust may be called on to take an especially hard stance against these activities in order to foster the independent behavior that will be required for competitive markets. Even that may not be enough. For example, the creation of a competitive market environment in a given industry may not only require a cessation of a trend toward mergers, but even a reversal. The task of antitrust will not be easy here, especially since firms may enter a defense of prior regulatory sanction against such an action.

The role of antitrust in a deregulated environment is by no means a clear one. It will obviously depend on the form that deregulation takes in each industry, an issue discussed in section three. The role of antitrust is not clear even now, as the deregulatory movement unfolds, nor was it before the wave of deregulation began. History shows that the boundary between regulatory and antitrust jurisdictions has never been completely

delineated, as we describe more fully in section two. Deregulation will not eliminate the narrow and awkward description of that boundary; it will merely shift the battleground in every case in which a portion of the industry remains regulated. In section three we show that this issue will require resolution in a number of industries.

We then turn our attention to those areas where the burden on antitrust will probably be the greatest with deregulation. In section four we address some of the problems that can be expected in the areas of monopoly. In section five we examine the kinds of problems that will confront antitrust enforcers in the areas of horizontal restraints and oligopoly, including pricing issues. In section six we address other aspects, including vertical restraints and mergers, and then briefly summarize some of our more important findings in section seven.

We have chosen not to emphasize many of the traditional issues that have been addressed in the vast literature on antitrust. A repetition of these issues would not further our purpose here, especially given the numerous excellent treatises in the field, including Areeda (1974), Kaysen and Turner (1959), Scherer (1970), Weiss (1967), and Bork (1978).

We also do not attempt to reiterate the many arguments for and against deregulation in the various industries to which we will refer, except where those arguments specifically relate to the issues to be encountered in the enforcement of antitrust policy. Rather, we will focus on issues which are either new or taken on a larger

significance as a result of deregulation. That task alone will prove challenging enough.

## 2. ANTITRUST AND REGULATION: A STUDY IN CONFLICT

It is true that government activities influence even unregulated markets in many ways. For example, the government controls import tariffs and quotas, regulates the money supply, levies taxes, controls governmental expenditures on goods and services, enforces contracts, and determines minimum wages. These actions affect virtually all markets.<sup>2</sup>

By contrast, in markets within the regulated sector of the economy, the government intervenes as a referee to affect the very heart of the mechanism that allocates resources.<sup>3</sup> The levels of prices, quality of service, investment in plant, or profits may be controlled. Firms may legally disseminate data about prices and levels of output, and may engage in joint efforts to influence government sanctions of the same. Entry into and exit from markets may be limited. Price discrimination may be sanctioned by regulatory authorities, and, as mentioned earlier, mergers that might not be allowed in unregulated markets may be approved under regulation. A number of kinds of activities may be allowed under regulation that would otherwise be illegal.

The rationale for regulation has been described in many places in the literature, and need not be reiterated in any detail here.<sup>4</sup> The reason most often cited from an economic perspective is

the natural monopoly argument. A natural monopoly is said to exist in markets in which "the minimum optimal scale of production is so large that there is room in a given market for only one or at most very few firms realizing all production and distribution economies of scale."<sup>5</sup> Thus, the argument goes, a single supplier (or a few suppliers) would be able to serve the entire market at a lower cost per unit of output than if there were many competing suppliers. Since the preservation of a competitive market is made difficult by the nature of production technology in such a case, an exclusive franchise is granted and monitored under regulation.

There are other potential justifications for regulation.<sup>6</sup> Regulation may be used to dampen the effects of economic fluctuations on certain markets, to subject the effects of changes in the economic environment to approval by administrative process instead of an impersonal market mechanism, or to deal with conditions that might arise from incomplete information in a market. Other possible reasons have included the redistribution of income by controlling the extent to which price discrimination is allowed, or by requiring one service to subsidize another. These redistribution schemes often require limited entry so that firms cannot enter only the lucrative parts of regulated markets and thereby reap the rewards of creamskimming. In addition it is sometimes argued that regulation prevents windfall profits, and allows regulators to adjust for externalities that may exist when firms and consumers do not base their actions on all of the social costs and benefits associated with a market.

For whatever reasons an industry may have been regulated enforcement of the antitrust laws in this country has historically been quite limited in regulated industries. As Areeda has noted, ". . . where there is natural monopoly there is little reason for antitrust policy except insofar as (1) the maintenance of monopoly ceases to be inevitable or (2) power in the monopoly area radiates outward into areas where competition is both possible and desirable."<sup>7</sup>

#### The Interface Between A Regulated An An Unregulated Sector

If an entire industry were a natural monopoly, then the tasks confronting both regulators and enforcers of antitrust would be simpler than they often are. A typical example of such a monopoly would be a local electric utility, whose services are provided largely without competition from other services offered by unregulated companies. Regulators have more complete control over such a monopoly than they would if unregulated rivals provided a service that would be a substitute; antitrust concerns itself less with injury to the nonexistent rivals, since regulators have jurisdiction over the entire existing industry.

However, the boundary between regulated and unregulated sectors is not always so clear. For example, regulated railroads often face competition from unregulated barges or from an unregulated sector of the motor carrier industry.<sup>8</sup> Regulated telephone companies now face competition in the manufacturing of terminal equipment and in the provision of domestic long distance

private line communication services.<sup>9</sup> And until the Natural Gas Policy Act of 1978, regulators of interstate wellhead sales of natural gas had no jurisdiction over intrastate sales, and could not force producers to direct gas supplies to the less lucrative interstate markets.<sup>10</sup> In such cases as these, regulators have found that their control over the industry is much less extensive because of competition from an unregulated sector. Similarly, enforcers of antitrust may be concerned that the performance of the unregulated sector is somehow impaired by the regulated sector.

The movement toward deregulation has in instances such as those just mentioned been expedited by increased interdependence among markets at the boundary between regulated and unregulated sectors.<sup>11</sup> Where competition at the fringe has proven viable, the natural monopoly argument for regulation has been questioned, with the consequent suggestion that many of the resource allocation decisions previously made by regulators might better be made through an unregulated market.

Since deregulation will move, but not eliminate the interface between regulated and unregulated sectors, questions of implied immunity, primary and exclusive jurisdiction, and state action will continue to await resolution. Historically, the arm of antitrust has found jurisdiction in some regulated industries,<sup>12</sup> not so in others,<sup>13</sup> and has found ambiguous stature in yet other cases.<sup>14</sup>

At still another level the extent of the role of antitrust remains unresolved. Specifically, when does the (legal) use of the administrative process of regulation differ from the (illegal) abuse of that process?<sup>15</sup> Under what circumstances, if any, can the antitrust statutes be used to limit the extent to which a particular interest group engages in lobbying or other activities to delay proceedings or to deter the interests of other groups? In two cases decided in the early 1960s, the Supreme Court appeared to eliminate abuse of process as a Sherman Act violation, based on immunity implied by the First Amendment.<sup>16</sup> More recently, the Court has held that there are some abuses of the administrative process that do constitute antitrust violations, including the knowing submission of false data to a regulatory authority,<sup>17</sup> and the concerted and repeated effort of an interest group to use litigation to deter entry.<sup>18</sup>

In short, a number of legal issues remain undecided. While it is obvious that deregulation will move some of the issues from the domain of regulation into that of antitrust, the nature of the problems at the interface will remain.

### 3. THE TREND TOWARD DEREGULATION

As noted in section one, the term deregulation has taken on a number of different meanings, depending on the industry in question. In this section we briefly give context to its meaning for a number of industries that have recently been or are soon likely

to be the target of some type of deregulation. We reiterate that the exact form of deregulation is not yet known fully in any of these industries. Even those for which statutes have been passed (for example, natural gas) will require a number of regulatory judgments and procedural specifications not known at the present time. Nevertheless, the general spirit of the deregulation movement in each case can be described in this section, allowing us to discuss some of the potential problems and issues relevant to the future of antitrust in subsequent sections.

#### Airline Service

Starting in 1975, the CAB began to relax its tight grip on the levels of air fares. It followed a gradual path toward rate freedom to the maximum extent consistent with its mandate to regulate, the Civil Aeronautics Act of 1938.<sup>19</sup> A wave of tariff reductions swept across the industry beginning in 1977 and accelerating in 1978.<sup>20</sup> At the conclusion of 1977, both entry into and tariffs on commercial air freight transportation were decontrolled by statute, with a proviso that future tariffs for freight service would not be predatory. The notion of a predatory price was not defined by statute. Deregulation of air passenger service has now been enacted with the Airline Deregulation Act, basically designed to decontrol both rates and entry.<sup>21</sup> As we shall see in section five, there are several important aspects of entry that will determine whether a deregulated air industry will lead

to vigorous competition. For the present we observe that free entry by fiat need not imply that free entry will in fact exist; as a corollary it follows that deregulation by fiat may not automatically lead to a vigorously competitive market.

#### Natural Gas

Following a number of proposals to deregulate natural gas during the 1970s, Congress successfully enacted the Natural Gas Policy Act of 1978.<sup>22</sup> The NGPA gradually deregulates a category of natural gas called "new" natural gas produced at the wellhead, with total decontrol of wellhead prices occurring after 1985.<sup>23</sup>

It is significant to note that regulation will remain in force for large segments of the natural gas industry, including the prices of gas not designated as new gas (i.e., "old" gas), the pipelines that transport gas from the field to local markets, and the local utilities that distribute the gas to customers.<sup>24</sup> As we shall see in section five, the interface between unregulated producers and the regulated pipelines may pose some interesting and difficult problems to both regulators and enforcers of antitrust.

#### Oil Prices

Like prices for natural gas, domestic oil prices have been held below the price on the world market for a number of years. At the start of 1979 approximately 30 percent of the domestic oil



produced oil was subjected to a ceiling of about \$6 per barrel of crude oil; the balance will be priced at about \$14 per barrel, and that is well below the current price of oil on the world market.<sup>25</sup>

In his nationally televised speech on energy on April 5, 1979, President Carter announced his intention to deregulate the price of all domestic oil, with successive steps of decontrol being completed by perhaps 1981. This form of deregulation differs markedly from the deregulation of natural gas, since old natural gas would remain regulated even after 1985. The President has announced plans to propose to Congress a windfall profits tax to prevent oil producers from realizing the large supernormal profits that would result with deregulation absent the tax. At this writing the exact form of the proposed windfall profit tax is not clear.

#### Motor Carriers

Although no statute has been passed with respect to motor carriers, there is a clear movement afoot to seek deregulation of that portion of the interstate motor carrier industry that is now regulated. Approximately 46 percent of the ton-miles of intercity freight carried by the trucking industry is regulated by the Interstate Commerce Commission presently. Another ten percent is regulated by intrastate agencies, with the balance being unregulated.<sup>26</sup> When deregulation is discussed in connection with the motor carrier industry, it usually refers to freedom of entry in

the carriage of any commodity over any route at unregulated tariffs.

#### Railroads

Although the complete deregulation of railroads, including the removal of all tariff and entry restrictions, has not been seriously discussed as a part of the recent wave of deregulation, certain elements of railroad regulation have been relaxed. The passage of the Railroad Revitalization and Regulatory Reform Act of 1976, (the Quad-R Act) is most notable in this respect. Among other things, this Act in principle allows a railroad to vary its tariffs within a "zone of reasonableness" without obtaining approval from the Interstate Commerce Commission, absent a finding of the ICC that the railroad has "market dominance."

While one might have expected railroads to alter their rates given this new flexibility, in particular by lowering rates where they face intermodal competition, no new rash of rate readjustments has followed the passage of the Act. In fact, as Nelson shows, ". . . railroads have been very cautious about taking advantage of the . . . Act during the first 18 months or so of its validity."<sup>27</sup>

#### Telephones

Two major areas of the telephone industry previously monopolized by regulated telephone companies have been opened to entry in the last decade. The two areas include the supply of terminal equipment and the provision of long distance private line

transmission. The decision of the Federal Communications Commission to allow competition in the supply of terminal equipment has been sustained by the courts, the primary remaining restriction being that the equipment is of a type certified as acceptable by the Commission.<sup>28</sup>

The long distance private line market cannot yet be described as competitive, although some entry has occurred. Both rates and entry remain regulated in this market.

The Congress is now engaged in an effort to rewrite the Communications Act of 1934 to reflect the existence of a number of new technologies (e.g., fiber optics, satellites, and microwave systems) that have arisen since the Act was passed over forty years ago. It may very well be that more competition in various areas of the telephone industry will result from that effort.

To be sure, several other industries marked by some relaxation in regulatory restraint could be added to this list, including cable television,<sup>29</sup> banking,<sup>30</sup> securities markets,<sup>31</sup> and water carriage.<sup>32</sup> The main point of even this partial enumeration is to show how deregulation can vary across industries, and to provide a background against which to assess the role of antitrust in the future.

#### 4. MONOPOLY

One of the most often cited reasons for the implementation of a regulatory scheme, as described in section two, is the prevention of the unfettered exercise of monopoly power, especially

when technology precludes the competitive coexistence of a large number of firms. If deregulation is to succeed, it must do so at least in part because the industry or part of an industry that is deregulated is not a natural monopoly. In some of these industries a single firm or a few firms have managed to achieve large market shares under regulation. This brings us to the first of the issues that antitrust must face with deregulation:

#### How Will Antitrust Deal With Firms That Have Gained Large Market Shares Under Regulatory Sanction?

In raising this question, we recognize that the application of antitrust to firms with large market shares in unregulated industries has changed over the years, and is still an issue without clear resolution. As recently as January 1979, the National Commission for the Review of Antitrust Laws and Procedures recommended to the President and the Attorney General that "a proviso be added to the end of Sherman Act Section 2 in order to clarify the appropriate standards" for determining whether a firm has attempted to monopolize an industry.<sup>33</sup>

Our purpose here is not to attempt a treatise on the comparative merits of per se and rule of reason interpretations of the Sherman Act, a traditional issue of antitrust, but rather to ask whether firms in industries just deregulated or in a transition to a deregulated state will be treated in the same way as firms in historically unregulated industries. At the two extremes antitrust agencies could attempt to break up firms with very large market shares

as soon as deregulation is enacted (consistent with the structural approach of antitrust since Alcoa<sup>34</sup>), or they could adopt a temporary wait-and-see attitude to find out whether deregulation measures alone are sufficient to induce a competitively performing industry. They could also pursue an intermediate stance, depending on the political climate, including the extent of antitrust enforcement activity tolerated by Congress, the availability of suitable remedies under existing legislation, and the possibility of obtaining new remedies with new legislation. If antitrust agencies do attempt to break up large firms, they may have to deal with the following issue.

#### Will A "Thrust Upon" Argument Be A Valid Defense?

We recall that in the Alcoa case the possibility of a "thrust upon" defense in a monopolization case was raised. In Alcoa the issue was whether Alcoa had achieved a monopoly in the ingot market by actions to exclude its competitors, or whether monopoly had been thrust upon Alcoa by virtue of its "superior skill, foresight, and industry." Although the Court found that monopoly had not been thrust upon Alcoa's lap, the Court did leave open the possibility that a thrust upon defense might be valid against a charge of monopolization.

A variation of this defense may very well occur with deregulation, since a firm previously regulated might argue that its large share of a market was thrust upon it by regulation. While such an argument is not only possible, but perhaps inevitable with deregulation, it will be of utmost importance that antitrust enforcement overcome this defense. Otherwise, the functioning of these markets will be checked by neither regulation nor antitrust.

#### Partial Deregulation: Immunity And The Interface

As noted in section three, in several industries the present movement is toward partial rather than complete deregulation. In those cases the distinction between the regulated and unregulated activities in an industry may be narrow and awkward. It may not be obvious where antitrust immunity exists under the regulatory umbrella, particularly if an industry is continually introducing new services or products that require a determination of jurisdiction.

Two examples may help to illustrate this point. First, consider the present movement in the telephone industry to allow competition in the provision of long distance private line telecommunication services. At present this activity remains regulated, although the Federal Communications Commission has decided to allow entry at regulated tariffs.<sup>35</sup>

Although the FCC allowed entry into private line markets, it wanted to retain a monopoly status for the traditional long distance "message toll service" (MTS) markets. In fact when the entrants into the private line markets have attempted to introduce new services that, in the opinion of the FCC, too closely resembled the MTS services of the established telephone carriers, the FCC has attempted to reject those offerings.<sup>36</sup> However, on appeal, the courts have reversed the FCC and denied the notion that MTS should be granted the standing of a natural monopoly.<sup>37</sup>

The point is this. With deregulation, antitrust enforcers may find themselves confronted with unregulated markets that have nontrivial interactions with regulated markets. The classic

questions arise. What is the relevant market? Does regulatory action in one area supersede antitrust action in a closely related but unregulated market?

It is natural to hope that, with well designed deregulation measures, problems like the one above will be minimal. But it would be naive to believe they will be nonexistent.

The second example is drawn from the railroad industry. As described in section three, the Railroad Revitalization and Regulatory Reform Act of 1976 allows railroads to change prices within zones of reasonableness without ICC approval, as long as the ICC does not determine the firm to have market dominance over a particular commodity. This suggests that under partial deregulation, a regulatory commission may take on the role of an antitrust enforcer. The recent United States Senate Committee on Government Affairs' Study on Federal Regulation commented on this as follows:

In other words, if the ICC determines that a railroad is dominant over a particular commodity, full rate regulation would be maintained. The statute attempts directly to answer one of the main concerns of those opposed to deregulation: The possible abuse of monopoly power. The ICC therefore assumes the role of antitrust enforcer.<sup>38</sup>

Thus the role of antitrust enforcement may take on a new character with deregulation. The cast of public representatives may be expanded beyond the Department of Justice and the Federal

Trade Commission to include regulatory agencies themselves. This increased division of responsibilities may actually increase the immunity of a partially deregulated industry from antitrust attack from sources outside a regulatory agency.

#### How Will Antitrust Deal With Refusals To Serve?

Where regulation grants an exclusive franchise, it usually imposes a common carrier obligation on the recipient of that franchise. This obligation typically states that the firm is required to serve all customers who demand service under the conditions stated in existing tariffs. Thus, customers will be assured of receiving service even though a single company; or in a case like the airlines, a few companies have charge of producing that service.

As deregulation occurs in airlines, parts of the telephone and railroad industries, and in the motor carrier industry, the common carrier obligation is likely to be removed from the deregulated portions of these industries. In some cases, customers may claim that their expectations for engaging in some major enterprise, for example, the building of a plant, was based on the expectation of the continued provision of a common carrier, such as railroad transportation.

It should be noted that refusals to deal (or serve) and group boycott are well defined antitrust offenses. However, where

partial deregulation occurs the role of antitrust may be delicate, particularly if a regulatory agency such as the ICC is acting as an antitrust enforcer in some areas as suggested earlier. Even without that complication the question is not easy to answer. Should provision service be required over some period of time until an otherwise deprived customer is able to make other arrangements? What if other arrangements are extremely costly? Will the court system be inundated with many antitrust grievances previously brought before regulators?

Refusals to serve have long been an issue within regulated industries. When firms other than telephone companies attempted to gain the approval of the FCC for the attachment of customer terminal equipment that they manufactured, AT&T opposed this strongly. Customers using such terminal equipment encountered a great deal of resistance over a number of years before their right to network service was secured.<sup>39</sup> As we noted in section three, the FCC decision to allow nontelephone companies to manufacture customer terminal equipment was in itself a form of partial deregulation. Enforcers of antitrust can expect more of this with the broadening of the deregulation movement.

To be realistic, antitrust can no more hope to eliminate all pockets of monopoly power from deregulated markets than it has in historically unregulated markets. At best it can be hoped that the use of antitrust tools will minimize the extent of such economic power, and several characteristics of deregulated markets may make this task more difficult than in historically unregulated markets.

These characteristics include initially highly concentrated markets, the anticipation of the thrust upon defense, and the potential barriers that limit the reach of antitrust where deregulation is partial.

#### 5. HORIZONTAL RESTRAINTS AND OLIGOPOLY

In terms of relative numbers, the types of antitrust cases most often brought are those involving horizontal restraints.<sup>40</sup> Where no single firm can monopolize an industry, firms may have an incentive to conspire to monopolize an industry, using such tactics as price fixing and dissemination of data on output, market shares, and prices. Where firms can collude, they may be able to extract extranormal profits if they can restrict output to bring higher prices, just as an unregulated monopolist might be expected to do.

The courts have not been sympathetic toward overt attempts at collusion. In fact, price fixing is illegal per se, as are trade association activities designed to facilitate the exchange of market share and price data.<sup>41</sup>

However, most oligopoly cases do not involve overt collusion, and the courts have struggled for years over the circumstances under which it may be possible to infer collusive action from such evidence as parallel pricing behavior. The nature of the dilemma confronting the courts has been summarized clearly by Judge Medina in the Investment Banker's Case:

True it is that conspiracies . . . are often hard to detect. No direct proof of agreement between the wrongdoers is necessary; circumstantial evidence of the illegal combination is here as elsewhere often most convincing and satisfactory. But, when all is said and done, it is the true and ultimate fact which must prevail. Either there is some agreement, combination or conspiracy or there is not. The answer must not be found in some crystal ball or vaguely sensed by some process of intuition, but in the evidence adduced in the record of the case which must be carefully sifted, weighed, and considered in its every aspect. This is an arduous but necessary task.<sup>42</sup>

One cannot expect the difficulties in detecting collusive behavior to be overcome soon. Regulation has created a number of structural conditions and practices that may prevent the emergence of effective competition, including equipment standards, credit terms, maintenance standards, and output quality standards, that may contribute to parallel behavior that is most difficult to prevent. In addition, in some cases regulation has created and sanctioned institutions, like rate bureaus, whose primary function is to assure conformity in some aspects of performance.

#### How Effective Will Antitrust Be In The Wake Of Rate Bureaus?

One of the interesting features of domestic transportation is the overt collusion among carriers in a given mode in recommending tariffs to regulators. These collective efforts are accomplished through nonprofit organizations of the carriers known as rate bureaus or conferences.

These organizations date back into the last century, and they have historically been viewed dimly by antitrust enforcers. Indeed as Weiss and Strickland note, the first collusion case brought under the Sherman Act and reaching the Supreme Court involved the Trans-Missouri Freight Association.<sup>43</sup> This organization consisted of eighteen railroads that controlled traffic west of the Mississippi River, and the association attempted to set rates for all of its members. In striking down this arrangement, the Court first enunciated its per se interpretation of the Sherman Act, that every restraint of trade was illegal.<sup>44</sup>

The practices of rate bureaus were again struck down in Georgia v. Pennsylvania Railroad Co. in 1945, in which the Supreme Court found that Congress had not empowered the ICC to exempt railroad carriers from the Sherman Act.<sup>45</sup> However, following extensive hearings on the matter, Congress found much support for bureaus from both shippers and carriers. In 1948 Congress granted rate bureaus statutory exemption from the antitrust laws by passing the Reed-Bulwinkle Act.<sup>46</sup> This exemption has continued until today. The Railroad Revitalization and Regulatory Reform

Act of 1976 requires that bureaus cannot vote on rates for services provided by only one line and that only carriers that could engage in a joint line movement can vote on a joint line rate. Within this structure, then, rate bureau activities are immune from antitrust.

Domestic rate bureaus are typically organized by geographic regions. There are ten railroad rate bureaus, eleven major rate bureaus for motor carriers, and several others for domestic water carriers. Additionally, international air carriers have their own organization to coordinate international fares, the International Air Transport Association (IATA),<sup>47</sup> and the Federal Maritime Commission has the power to grant antitrust immunity to conferences among ocean carriers.<sup>48</sup>

The potential problems that rate bureaus pose amidst a movement toward deregulation are strongly apparent. The power to fix prices is antithetic to the functioning of a competitive market. It is no wonder then, that the National Commission for the Review of Antitrust Laws and Procedures has recommended to the President and the Attorney General that the Reed-Bulwinkle Act should be repealed,<sup>49</sup> and that the antitrust exemptions granted to ocean shipping conferences should be examined closely and removed where there is excessive and unnecessary restraint of trade.<sup>50</sup> The abolition of rate bureaus is especially important where the total deregulation of pricing and entry is contemplated, as the case may be in the motor carrier industry.

The existence of international conferences poses a particularly difficult problem in public policy. On the one hand, these conferences may facilitate the achievement of diplomatic and national defense objectives.<sup>51</sup> Yet on the other, they may provide a means for participants to disseminate data and to otherwise engage in activities that have effects on the domestic markets that any of the participants may serve, for example in the airlines industry. The role of antitrust will no doubt depend crucially on the circumstances particular to each industry.

In short, then, our discussion of rate bureaus emphasizes that deregulation measures alone will not necessarily lead to independent behavior, especially since established firms may have well developed mechanisms for communicating information detrimental to a competitive market performance. Similarly, antitrust enforcers must recognize that free entry by fiat need not lead to free entry in fact, a subject to which we now turn.

#### Will Deregulation Lead To Free Entry?

Free entry is often cited as necessary for perfectly competitive markets. Of course, in many of the industries in which deregulation is occurring, it is important to recognize that it may be desirable to require entrants to meet certain standards. For example, no one has seriously argued that airline deregulation should include an abolition of safety standards for aircraft or in the use of airways. Similarly, few would suggest that standards of financial responsibility should be abolished for insurance companies and brokers.

In one sense, the existence of any such standards means that entry is not truly free. Yet in another, if anyone who is willing to satisfy these standards is allowed to enter by law, then a form of free entry exists. The important point to make here is that the legislation of free entry need not lead to free entry in fact. Where free entry is desirable, antitrust enforcers should pay particular attention to any features of a market that might deter entry, including the existence of large entry costs, excess capacity, and the potential of a multiproduct firm to extend monopoly power from a market that is regulated into another market that is deregulated.

The notion of large entry costs is usually applied to situations in which very large capital requirements exist in order to enter, particularly if this results in economies of scale in production. Kahn has noted that in industries of this sort (for example, the local distribution of electric power or the local telephone exchange) destructive competition might result in the absence of regulation.<sup>52</sup> Segments of industries that exhibit these characteristics are not good candidates for deregulation of both prices and entry, a statement largely reflected in the nature of the deregulation movement for the various industries discussed in section three.

However, while the absence of large entry costs and economies of scale is a necessary condition for a competitive market performance, that absence is not sufficient. There may be institutional or historical reasons for which entry might not be

truly free. For example, in the airlines industry existing firms have secured choice gate locations and time slots at major airports and established well developed schedules for connecting flights. Although the technological barriers to entry are relatively low in this industry, effective entry requires that landing rights can be obtained by new rivals, a problem most likely to arise in congested airports.

At the present time it is not clear just how these landing rights will be made available to firms in the industry. It is not sufficient to dismiss this caveat by simply saying that air slots, including landing rights, will be auctioned off in some undefined manner. Studies have shown that the structure of a market can be strongly influenced by the kind of auction that is conducted.<sup>53</sup> The tenure of the landing rights that are purchased, the relative sizes of the bidders, and the nature of the transportation network served by each bidder will also affect the performance induced by any particular type of an auction.<sup>54</sup> While a detailed discussion of auction processes is well beyond the scope of this paper, antitrust enforcers should take an interest in the development of these institutional arrangements with deregulation, since the structure and performance of certain markets may be strongly affected by whatever approach is ultimately chosen. For example, at the time of this writing, virtually no attention has been directed toward the mechanism by which air slots are to be allocated in congested airports.



Will Deregulation Introduce New Incentives For Predatory Pricing?

Let us now turn our attention from entry to pricing. To be sure, any incentives for anticompetitive pricing that have existed in historically unregulated markets will also appear in unregulated markets. We have already discussed one form of anticompetitive pricing, price collusion. But now we address a second form, predatory pricing.

Pricing that is predatory is not easy to define, as Areeda has noted. "It connotes conduct that has the purpose or effect of destroying or weakening a rival. But, of course, fair competition has the same objective: to prevail in the marketplace relative to rivals."<sup>55</sup> The debate over what constitutes predatory pricing has been tortuous. Does it mean pricing below marginal cost, average variable cost, or where profits are negative? If a measure of profits is to be used, how does one calculate the profits associated with a particular product, particularly if some of the costs incurred by the firm are shared by the product in question and other products? Even if a particular notion of costs or profits is deemed appropriate as a benchmark, it is often difficult to measure the relevant entity.

Finally, a determination of predatory pricing often turns on whether the pricing practice prevails for a long time or a short time. If the latter, is a very low price viewed as simply promotional, or as an attempt to eliminate competitors, perhaps with the intent to raise prices later and to deter entry by a threat of a repeated introduction of a low price.<sup>56</sup>

It is well beyond the scope of this paper to examine these issues for unregulated industries in any detail. We do note that there is generally less reason for concern over predatory pricing in markets in which entry is relatively easy. Suppose the aim of predatory pricing is to drive out competitors to create market power, with the intent to raise the price later to generate supernormal profits. Then if entry is easy, supernormal profits cannot long prevail without signaling entry.

This argument sets forth an additional reason why antitrust enforcers should make sure that no large barriers to entry remain in deregulated industries. Incentives to engage in predatory pricing are greatly reduced when entry is easy.

Rather than focusing on these well known issues, the main purpose of this section is to address a new kind of pricing issue that may be introduced with deregulation. Specifically, we refer to the case in which a firm serving a newly deregulated market also provides services in another regulated market. The major potential consequence of this situation is that a number of the important pricing dilemmas that have long confronted regulators may now be transferred to the courts, requiring resolution by antitrust procedures.

To further motivate this concern, we recall a seminal article by Averch and Johnson.<sup>57</sup> They examined a situation in which a regulated firm provides service both to a regulated monopoly market and to a second market that might be opened to

entry at unregulated prices. For example, a telephone company might provide service as a regulated monopolist in one market, and provide other services in unregulated markets (e.g., the supply of customer terminal equipment or the provision of long distance private line service). Averch and Johnson have shown that if such a firm is regulated by a rate of return constraint applied collectively to all of the products of the firm, then the firm may have an incentive to price the competitive services below marginal cost in order to expand the rate base and thereby generate larger profits.

This is notable because a completely unregulated firm would not have an incentive to run a long run loss in a market.<sup>58</sup> Yet a partially deregulated firm, one of whose markets is totally deregulated, might very well have an incentive to run a long run loss in a competitive market.

Both the Interstate Commerce Commission and the Federal Communications Commission have spent nearly a decade trying to decide what criteria should be used to describe prices that are "fair,"<sup>59</sup> a task that has been complex even when all of the markets involved fell within the jurisdiction of a regulator. With partial deregulation, the task will now be split between regulators and antitrust enforcers.

To summarize the point, economic theory has suggested that there may be long run incentives to price below marginal cost where a single firm serves both regulated and unregulated markets.

Under virtually any definition, this would be viewed as predatory pricing.

#### 6. OTHER AREAS: VERTICAL RESTRAINTS AND MERGERS

To be sure, the various areas of antitrust cannot always be neatly separated into mutually exclusive areas. Accordingly, we have already addressed certain issues relevant to both vertical restraints and mergers. For example, in section four on monopoly we have already dealt at some length with one form of vertical restraint, refusals to deal, and need not repeat those issues here.

In keeping with the tenor of the rest of this paper, we recognize that the traditional issues of vertical restraint addressed in antitrust cases for historically unregulated markets will surely remain relevant in markets that are deregulated, including problems with tying arrangements, exclusive dealing, and exclusive franchising. We focus on other issues that are perhaps less obvious, and are more directly associated with the deregulation movement.

One of the most important problems of vertical restraint will arise at the interface between regulated and deregulated markets. Section 10 of the Clayton Act prohibits common carriers from purchasing inputs without competitive bidding from companies with whom they have interlocking directorates. As we see it there will be at least two ways in which enforcement of this provision will be very important with deregulation.

First, antitrust authorities should be alert to the possibility that a firm that is regulated in one of its markets may refuse to deal with any of the firms in a deregulated market other than its own affiliate. For example, if a telephone company maintains a monopoly in local exchange, and has an affiliate that produces telephone equipment, there may be an incentive for the local exchange company to restrict its purchases of equipment to its own affiliate. Of course, the restriction need not be complete. The point is that any such restriction forecloses a portion of the equipment market to competing supply firms.

The potential problems of vertical restraint may go beyond foreclosure of the market. If the local exchange company is regulated by a rate of return, then it might not object to paying higher-than-competitive prices for equipment since these higher prices will be reflected in an inflated rate base and ultimately in higher profits for the local exchange company. The equipment supplier would also realize extranormal profits at these higher prices. This suggests that vertical relationships can lead to extranormal profits in partially deregulated industries; the problem has been formally analyzed by Dayan (1972).

A similar problem could arise in other industries. For example, consider the case of vertically integrated pipelines and suppliers of oil and gas. A pipeline might be willing to pay a higher-than-competitive price for, say, natural gas purchased from its own affiliate. The pipeline could pass these higher fuel costs

along to customers under automatic fuel price adjustment mechanisms often used by regulators, and the producers of gas would realize supernormal profits on such sales. Thus, the existence of many competing producers in wellhead markets may not guarantee that actual wellhead sales take place at competitive prices.<sup>60</sup>

The warning signals from these examples are clear enough. If regulators do not scrutinize these transfer prices closely, antitrust enforcers may be saddled with that responsibility. The task will not be easy. To take only the two examples we have cited, natural gas supply contracts are often complicated so that a comparison of prices from one contract to another is not easy. In the telephone example, there are very many different types of equipment whose prices would have to be examined. Since the current direction of the deregulation movement will apparently lead to vertical affiliates that straddle the interface between regulated and unregulated markets, the problems we have suggested appear to be both important and inevitable.

#### The Merger Problem

Before concluding, we turn to the topic of mergers, an area that will undoubtedly require the increased attention of antitrust enforcers with deregulation. Through their direct determination of market structure, mergers obviously affect market performance. It therefore requires no elaboration to emphasize the point that many of the market structure decisions previously made by regulators will be made in the antitrust arena with

deregulation. While merger decisions made by regulatory authorities have not been totally immune from antitrust attack,<sup>61</sup> there can be no doubt that the role of antitrust regarding mergers will be expanded with deregulation.

The most difficult aspect of the merger problem, at least in some industries, is that the structure of the industry sanctioned under regulation may already be oligopolistic. Since at least 1950, with the passage of the Cellar-Kefauver Act, merger rulings in historically unregulated industries have largely attempted to nip oligopoly in its incipiency. It is much easier to prevent a merger that could lead to an oligopolistic development of an industry than to break up firms after an oligopolistic structure has been reached. Unfortunately, in historically regulated industries, the structure of the industry may have long ago become highly concentrated. Thus the role of antitrust may be heavily oriented toward undoing the damage done by past mergers in order to create competitively structured markets. In some cases this may be difficult to do, particularly where firms involved have some parts that remain regulated while other parts are participants in deregulated markets.

While these tasks may be difficult and somewhat different from the ones involving mergers in historically unregulated markets, the issues antitrust enforcers appear to be largely the same. The central question remains: How big do firms have to be in order to realize economies of scale in production, and will the size of the market permit enough of these efficiently sized firms to

coexist so that a competitive structure can be reached? Because this central issue has not changed with deregulation, we do not dwell on the volumes of literature that have attempted to answer this question for each of the industries we described in section three.<sup>62</sup>

We close this section by drawing attention to one rather interesting structural possibility that may arise with deregulation. It has most often been discussed in the transportation industry, but also may arise in the energy industry. We refer to the possibility of the integrated transportation company.<sup>63</sup> Regulation has restricted the extent to which a transport firm can offer service using more than one mode, particularly within the same geographic area. With deregulation, transport firms might try to diversify by forming integrated, multimodal companies, offering perhaps rail, barge, and motor carrier services simultaneously. It has been argued by some that such companies could provide transport services more cheaply, especially since they would have incentives to choose the most efficient form of transportation required to render a service. This would obviously involve an expansion of the production activities of existing firms, some of which may be attempted through mergers. Antitrust enforcers may be confronted by a decision as to whether this type of diversification is consonant with a competitive market structure, and if so, whether a move toward such a structure can be accomplished by the entry of existing firms into other modes without mergers.

## 7. CONCLUSION

We have attempted to describe the role of antitrust in a deregulated environment. We have focused on new trends and problems that will confront antitrust enforcers, drawing numerous examples from the industries most likely to be affected by deregulation. An examination of the trend of deregulation for a number of industries shows that no single form of deregulation can truly be viewed as typical. Accordingly, the role of antitrust will vary from industry to industry.

If any single theme has emerged as dominant, it is this: The most complex problems will arise in those industries in which deregulation is partial. In these cases, the social control of an industry creates policy problems that may find neither mutual exclusion nor collective exhaustion in the course of regulation and antitrust. In short, there is a danger that regulators and antitrust enforcers will fight over jurisdiction in some important matters, while other important problems receive the attention of neither.

One important policy question that will have to be settled is whether existing agencies have the requisite jurisdiction and powers to create an effectively competitive environment. If not, perhaps existing agencies will require new authority, more resources, and new remedies. While it is not presently obvious whether and to what extent such changes will be needed, we have pointed to the types of questions that will be most important in signalling the need for change. First, who will scrutinize the price at which one firm sells goods or services to an affiliated firm, especially when only

one of the firms is regulated? Second, who will determine when a price in a regulated market is predatory or otherwise anticompetitive, particularly if the firm charging that price also serves a regulated market? Third, what will be the boundary of antitrust immunity? Fourth, under what conditions will a merger involving a firm serving both regulated and unregulated markets be allowed, and who specifies these conditions? Fifth, have regulations created structural conditions and practices that contribute to consciously parallel behavior? And sixth, who will decide when a refusal to serve is illegal, particularly if the sale in question involves both regulated and unregulated firms? In the text we have suggested circumstances in selected industries under which each of these dilemmas might actually occur.

Whether deregulation is partial or not, the first task of antitrust enforcers will be to determine whether structural change is required to prevent the exercise of unchecked economic power by firms now unaccountable to regulators. Structural change may be necessary to foster competitive markets, particularly where regulation has created highly concentrated markets. Antitrust enforcers must expect two new types of defense: (1) that the large market shares for which structural relief is sought was thrust upon existing firms by regulators, and (2) that structural relief is unnecessary, since deregulation will by itself naturally erode the market shares of larger firms.

We have also emphasized that antitrust enforcement will encounter a number of practices antithetic to the creation and

maintenance of competitive markets, practices that are deeply ingrained in the fabric of the industries being deregulated. It will not be easy for antitrust to overcome the inertia of decades of sanctioned collusion and monopoly. Some of the institutions at the heart of the regulated system must be eliminated with deregulation, including domestic rate bureaus in transportation industries where price and entry are decontrolled. Even then antitrust enforcers must watch closely to ensure that behavior is independent, especially where other institutions, such as international conferences, continue to exist.

Finally, antitrust enforcers must constantly watch for any obstacles that impede free entry where free entry is desirable. Deregulation by fiat does not guarantee free entry in fact.

## FOOTNOTES

1. Compare this with, for example, the United Kingdom, in which nationalization is an often employed form of social control of industry.
2. See Kahn (1970), Vol. I., especially pages 2-3, for a description of the regulated sector.
3. For a good review of the literature in regulation, see Joskow and Noll (1978).
4. See Kahn (1970), Vol. I, pp. 5-11 for a discussion of the legal rationale for regulation, and pp. 11-12 for a summary of the economic rationale.
5. Scherer (1970), pp. 519-520.
6. For a good summary of these potential reasons for regulation, see the Study on Federal Regulation, United States Senate Committee on Governmental Affairs (1978), Volume VI, pp. 270-291.
7. Areeda (1974), p. 106.
8. See Kahn (1971), Vol. II, Chapter 1.

9. See Owen and Braeutigam (1978), Chapter 7.
10. See Owen and Braeutigam (1978), Chapter 3.
11. See Nelson (1978), and Braeutigam (1978).
12. Cantor v. Detroit Edison, 44. L.W. 5357 (1976), U.S. v. AT&T, Civil Action No. 74-1698 (District D.C.), Memorandum and Order on Jurisdictional Issues, filed Nov. 24, 1976.
13. U.S. v. NASD 422 U.S. 694 (1976).
14. McLean Trucking Company v. United States, 321 U.S. 67 (1944). For an interesting discussion of this case, see Areeda (1972) p. 45.
15. See Owen and Braeutigam (1978), pp. 32-35, for a discussion use and abuse of administrative process.
16. See Eastern Railroad President's Conference v. Noerr Motor Freight 365 U.S. 127 (1961) and United Mine Workers v. Pennington 381 U.S. 657 (1965).
17. Woods Exploration v. Alcoa 438 F 2d 1286 (5th Circuit), cert, den. 404 U.S. 1027 (1971).

18. See California Motor Transport v. Trucking Unlimited 404 U.S. 508 (1972) and Otter Tail Power Company v. U.S. 410 U.S. 366 (1973). In the first case a group of truckers was prohibited from collectively planning to exhaust process by opposing all new trucking applications for entry certificates. In the second case Otter Tail attempted to discourage municipalization of power production by repeated litigation, and was proscribed from doing so.
19. Stat. 102, 72 Stat. 740, USCA 1303.
20. For a discussion of these reductions in tariffs, see Keeler (1978), pp. 135-136.
21. For a discussion of the events leading to the Airline Deregulation Act, see Keeler (1978).
22. See the Federal Register, Federal Energy Regulatory Commission, Natural Gas Policy Act of 1978, Friday, December 1, 1978, Part VIII.
23. New natural gas produced from onshore wells must come from new reservoirs, or new wells no closer than 2.5 miles from the nearest marker well (a marker well is any well from which natural gas was produced in commercial quantities after January 1, 1970, and before April 20, 1977, with the exception of wells whose

surface drilling that began after February 19, 1977), or if closer than 2.5 miles to a market well, 1000 feet deeper than the deepest completion location of each market well within 2.5 miles.

24. For a detailed discussion of the various segments of the natural gas industry, see Braeutigam (1978).
25. Montgomery (1978), p. 825.
26. See Roberts (1978), p. 473.
27. Nelson (1978), p. 64.
28. See Owen and Braeutigam (1978), Chapter 7.
29. See Owen (1978), pp. 347-389.
30. See the United States Senate Committee on Governmental Affairs, Vol. V (1978), pp. 197-228.
31. See Stoll (1978) pp. 589-656.
32. For example, in 1973 the ICC abolished the so-called "barge mixing rules," thereby better enabling water carriers to compete with other modes in transporting certain commodities. See Lieb (1978), p. 92. It is worthwhile to note that only a small percentage of intercity water carriage is regulated in any case.

33. National Commission for the Review of Antitrust Laws and Procedures (1979), pp. 150-151.
34. United States v. Aluminum Co. of America, et. al. 148 F.2d 416 (1945).
35. See FCC Final Report and Order, Docket 18920 (Specialized Common Carrier Services), Federal Register, June 9, 1971, paragraph 103, 120.
36. Most notably, in 1975 the FCC rejected a proposal of MCI to offer its so-called Execunet service (see FCC Order 75-799, July 2, 1975). For a discussion of this see Owen and Braeutigam (1978), pp. 229-230.
37. Ibid., p. 230.
38. Study on Federal Regulation (1978), Vol. VI, p. 93.
39. See the discussion of the Hushaphone and Carterfone cases in Owen and Braeutigam (1978), pp. 230-231.
40. See Posner (1970) for a statistical summary of the types of antitrust cases brought by the Department of Justice and the Federal Trade Commission from 1890 to 1969.



41. See Areeda (1974), Chapter 3. However, not all data dissemination practices are illegal. See Tag Manufacturers Institute v. FTC 174 F 2d 452 (First Circuit, 1949).
42. United States v. Morgan 118 F. Supp. 621, 634 (S.D.N.Y. 1953), quoted in Stelzer (1976), p. 122, as a part of the decision in United States v. Chas. Pfizer and Co., Inc. 367 F. Supp. 91 (S.D.N.Y. 1973).
43. United States v. Trans-Missouri Freight Association 166 U.S. 290 (1897).
44. The per se interpretation of the Sherman Act was abandoned in favor of a rule of reason in 1911 in Standard Oil Company of New Jersey v. United States 221 U.S. 1 (1911). The per se interpretation was revived in 1945 with United States v. Aluminum Company of America 148 F 2d 416 (2d Cir. 1945).
45. Georgia v. Pennsylvania Railroad Co. 324 U.S. 439 (1945).
46. 62 Stat. 472 (1948).
47. Lieb (1978), pp. 172-173.
48. National Commission for the Review of Antitrust Laws and Procedures (1979), p. 275.

49. Ibid., p. 197
50. Ibid., p. 273.
51. Ibid., p. 273.
52. Kahn (1971), Vol. II, pp. 172-178.
53. See, for example, Ferejohn, Forsythe, and Noll (1977), Hong and Plott (1977), Plott and Smith (1978), and Isaac and Plott (1979).
54. For a discussion of competitive bidding for franchises, see Demsetz (1968) and the United States Senate Committee on Governmental Affairs' Study on Federal Regulation (1978), Vol. 5, pp. 99-102.
55. Areeda (1974), p. 669.
56. For a good discussion of these issues, see Areeda (1974), pp. 669-673.
57. Averch and Johnson (1962).
58. We are assuming that there are no strong demand complementarities among the services of the partially regulated firm in making this

argument for the unregulated firm. However, even if there are strong demand complementarities, the basic point that a partially regulated firm may have an incentive to set price below marginal cost in a competitive market remains valid even if there are such complementarities.

59. Federal Communications Commission, "Revisions of Tariff FCC No. 260 Private Line Services, Series 5000 (TELPAC)," Docket 18128, 61 FCC 2d 606, Nov. 26, 1976, and Interstate Commerce Commission, "Rules to Govern the Assembling and Presenting of Cost Evidence," Docket 34013, 337 ICC 298, July 30, 1970.
60. This has been suggested by Braeutigam (1978), pp. 711-712.
61. See, for example, U.S. v. El Paso Natural Gas 376 U.S. 651 (1964).
62. See, for example, the United States Senate Committee on Governmental Affairs' Study on Federal Regulation (1978), Appendix to Volume 6, for a number of such studies.
63. For a discussion of transportation companies, see Friedlaender (1969), pp. 155-162.

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