# Should Merger Policy Be Changed? An Antitrust Perspective

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Over the past 15 years, a revolution has occurred in U.S. merger policy.<sup>1</sup> Antitrust attacks on non-horizontal mergers have all but disappeared. Regulation of horizontal mergers now starts from the presumption that "the vast majority of horizontal mergers pose no market power problems and should simply be approved rapidly" (Schmalensee 1987, p. 44). In February 1986, the Reagan adminisration urged Congress to codify the new interpretation of Section 7 and to mandate consideration of a merger's salutory effects on economic efficiency.<sup>2</sup> If former Commerce Secretary Baldridge had had his way, the Administration would have sought complete repeal of the antimerger law.

Reversal of the conventional wisdom on mergers can be traced to acceptance of Robert Bork's views on the subject. In large measure, the case for the status quo rests on the soundness of his position. As a result, I shall discuss that position in some detail. Finding it deeply flawed, I then propose a research agenda for those who doubt the adequacy of current enforcement. I begin, however, with a brief discussion of the U.S. Supreme Court opinion that did so much to inspire retreat from an activist policy stance.

## The Status Quo Ante: Von's

In 1960, Von's Grocery Company acquired Shopping Bag Food Stores. Both companies operated chains of retail grocery stores in the

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Los Angeles metropolitan area. In 1958, Von's ranked third in area sales with 4.7 percent of the market and Shopping Bag ranked sixth with 4.2 percent of the market.<sup>3</sup> The largest seller in the area, Safeway, enjoyed a market share of 8 percent. The merger would have increased four-firm seller concentration from 24.4 percent to 28.8 percent, eight-firm concentration from 40.9 percent to 44 percent, and twelve-firm concentration from 48.8 percent to 50 percent.

Between 1948 and 1958, seller concentration had declined at the four-firm level (from 25.9 percent). Safeway had lost almost half its market share (from 14 percent), and the two largest sellers had lost one-third of their combined market share (from 21 percent). At the eight- and twelve-firm levels, seller concentration had increased (from 33.7 percent and from 38.8 percent, respectively). Nevertheless, membership in the group of top-ranked firms was hardly stable: Of the 20 largest sellers in 1958, seven "were not even in existence as chains in 1948."<sup>4</sup>

Declining concentration at the four-firm level, and instability of market rank at the 20-firm level, were hardly surprising. "The continuing population explosion of the Los Angeles area, which has outrun the expansion plans of even the largest chains, offers a surfeit of business opportunity for stores of all sizes"<sup>5</sup> and there were "no substantial barriers to market entry." In fact, "many of the stores opened by new entrants were obtained through the disposition of unwanted outlets by chains; frequently the new competitors were themselves chain-store executives who had resigned to enter the market on their own."<sup>6</sup> Between 1953 and 1962, the number of chain stores operating in the area increased from 96 to 150. In addition to thousands of single-outlet shops, 269 separate chains operated in the area at some time during that period.

On May 31, 1966, the Supreme Court decided to prohibit the merger.<sup>7</sup> Speaking through Justice Black, the court did not claim that the merger had in fact diminished competition. Rather, citing the incipiency

<sup>&</sup>lt;sup>1</sup> The revolution is embodied in the merger guidelines of the Department of Justice. As Ravenscraft (1987) points out, however, juxtaposition of the Johnson and Reagan versions understates the enforcement gap between the two administrations. The 1968, 1982, and 1984 guidelines are reprinted in Commerce Clearing House, *Trade Regulation Reporter*, volume 1, paragraphs 4490–4495 (1984), 4500–4505 (1982), and 4510 (1968). The Federal Trade Commission has also announced its views of Section 7. A general statement appears in paragraph 4516. Applications to specific industries appear in paragraphs 4520 (cement), 4525 (food distribution), and 4535 (textiles).

<sup>&</sup>lt;sup>2</sup> The Merger Modernization Act of 1986, S2160, 99th Congress, 2nd session.

<sup>&</sup>lt;sup>3</sup> The facts concerning this case are taken from the majority and minority opinions of the U.S. Supreme Court, 384 U.S. 270 (1966).

<sup>&</sup>lt;sup>4</sup> 384 U.S. 270, 290; Justice Stewart, dissenting.

<sup>&</sup>lt;sup>5</sup> Ibid., 288.

<sup>&</sup>lt;sup>6</sup> Ibid., 300.

<sup>&</sup>lt;sup>7</sup> 384 U.S. 270 (1966).

<sup>8 374</sup> U.S. 321 (1966), 362.

doctrine announced in *Philadelphia National Bank*,<sup>8</sup> it asserted that the merger might (with unspeculated probability) reduce competition in the future.

Black justified his concern for future competition by citing the disappearance of single-outlet grocery stores in the area. Between 1950 and 1961, the number of such stores declined from 5,365 to 3,818. Coupled with the rise of seller concentration described above, and a history of acquisitions by sellers ranked among the top 20 (if not the top few), Black concluded: "These facts alone are enough to cause us to conclude contrary to the district court that the Von's-Shopping Bag merger did violate section 7."<sup>9</sup>

Black's accounts of the origins of the Clayton and Celler-Kefauver Acts reveal his conviction that competition depends more on the preservation of small business than on the limitation of seller concentration. Regarding the Clayton Act, Black observes: "The Sherman Act failed to protect the smaller businessmen from elimination through the monopolistic pressures of large combinations which used mergers to grow ever more powerful. As a result in 1914 Congress, viewing mergers as a continuous, pervasive threat to small business, passed section 7 of the Clayton Act . . . "<sup>10</sup> Regarding the Celler-Kefauver Act, Black adds: "Like the Sherman Act in 1890 and the Clayton Act in 1914, the basic purpose of the 1950 Celler-Kefauver Act was to prevent economic concentration in the American economy by keeping a large number of small competitors in business."

Unfortunately, Black fails to explain why small business per se promotes competition. He presents a tempting target to those asserting that his merger policy is really designed to restrict competition so as to preserve a now inefficient way of life. From his brother, Justice Stewart, to the majority of economists, most readers of his opinion have taken aim.

# The Status Quo: Robert Bork

In *The Antitrust Paradox: A Policy at War with Itself,* Robert Bork opines that only two types of merger warrant legal intervention on antitrust grounds. The first involves combination of actual competitors firms that already sell either in the same market or in markets for substitute products. The second involves fusion of potential competitors firms that most likely will become actual competitors in the future. Labeling both as horizontal forms of merger, Bork argues that other types of combination—vertical and conglomerate—should never be barred by

<sup>&</sup>lt;sup>9</sup> 384 U.S. 270, 274.

<sup>10 384</sup> U.S. 270, at 274-75.

government: "Properly drawn and applied horizontal rules are all that we need" (Bork 1978, p. 245).

Even horizontal mergers should be curbed only rarely. With respect to mergers involving actual competitors, Bork is inclined to allow any merger that confers less than 60 percent of well-defined markets on the resulting enterprise. Ultimately, however, he adopts a position that makes "presumptively lawful all horizontal mergers up to market shares that would allow for other mergers of similar size in the industry and still leave three significant companies. In a fragmented market, this would indicate a maximum share attainable by merger of about 40 percent. In a market where one company already has more than 40 percent, the maximum would be scaled down accordingly. For example, where one company already had 50 percent, it could not engage in any horizontal mergers, and no other company could create by merger a share above 30 percent (barring some exceptional circumstance, such as the imminent failure of one of the merger partners)" (pp. 221-22). Meanwhile, elimination of potential competitors should be prevented "only when three other conditions are met: the outside firm is a probable entrant by internal growth if the merger is disallowed; there are no other equally probable entrants; and entry is sufficiently difficult that restriction of output is possible." In Bork's view, "Very few industry situations will meet these conditions . . . " (p. 260).

How does Bork justify the shave he applies to the Clayton Act? His razor glides fundamentally on the proposition that competition policy should be deployed to only one purpose: promotion of economic efficiency. "Antitrust policy should never concern itself with equity in income distribution" (p. 220). Implicitly, then, Bork suggests that policymakers should ignore market power whenever it is exercised in Pareto-optimal fashion.<sup>11</sup>

The significance of shifting antitrust's focus from market power to economic efficiency can be illustrated simply. Consider an industry characterized by constant returns to scale. Currently, the industry contains enough producers to guarantee competitive prices. These producers, however, are contemplating merger. If, upon merger, they would not be able to discriminate in price, industry output would fall after the merger. If, however, they would be able to discriminate perfectly in price, output would remain as it was before merger. Since discrimination enhances their profit as well as their output, monopolists will indulge in it whenever possible. Thus, as long as perfect discrimination is feasible, Bork's

<sup>&</sup>lt;sup>11</sup> For tactical reasons, no doubt, Bork refers to Pareto optimality as "the consumer welfare model." Rather than describe social surplus as the sum of consumer and producer surplus, he notes that ownership of producers by consumers makes producer surplus a special case of consumer surplus.

welfare economics imply that a horizontal merger eliminating all competition should be allowed to stand.

The same logic applies to vertical mergers. Consider a bilateral monopoly in which the upstream monopolist determines the price of an intermediate product (such as flour) and the downstream monopolist determines the price of a final product (such as doughnuts). If the miller is allowed to acquire the baker, the price of doughnuts will fall, and production of both flour and doughnuts will increase. Bork explicitly approves of such a merger (p. 230).

Now suppose the miller's flour is used to bake bread as well as doughnuts. To the extent that consumers exhibit inelastic demands for bread and elastic demands for doughnuts, the miller would like to charge high prices for flour used in bread and low prices for flour used in doughnuts. Arbitrage between bakeries might prevent such discrimination, however, creating incentives for the miller to acquire all bakers of doughnuts (Perry 1978). If prevented from engaging in such acquisitions, the miller will charge the textbook's monopoly price to all bakers. This price will result in less output of flour than would either price discrimination or extension of the miller's monopoly forward into flourusing activities. As long as the miller acquired his initial monopoly legally, he should be allowed to acquire the bakers of doughnuts (Bork 1978, p. 240).

Having limited the scope of antitrust policy to realization of economic efficiency, Bork justifies his preoccupation with horizontal mergers in the following manner: Horizontal mergers can increase profits even if they fail to increase productive efficiency. Vertical and conglomerate mergers, however, only increase profits if they increase productive efficiency. Such mergers might injure competing sellers, but they do not endanger Pareto optimality. They should not, therefore, be prohibited by law.

Bork employs this sequence of assertions to assail the argument of Comanor (1967) that vertical mergers can cause barriers to new competition.<sup>12</sup> Consider again the bilateral monopoly in which a single miller sells flour to a single baker of doughnuts. As long as the two monopolists transact at arm's length, potential competitors might reasonably contemplate entry into either line of business alone. In so doing, they could achieve a position devoid of disadvantage vis-à-vis their incumbent rival. If, however, the miller merges with the baker, potential competitors must integrate themselves or run the risk associated with being forced to buy from or sell to a rival. Since the capital requirements of integration exceed those of entering a single business, the incumbent's behavior (according to Comanor) might douse the enthusiasm of poten-

<sup>&</sup>lt;sup>12</sup> Interestingly, even the 1984 merger guidelines side in principle with Comanor.

tial entrants for playing the incumbent's game.

Not so, says Bork. As some potential competitors enter milling, others might enter baking, obviating the need for an unintegrated entrant to deal with the integrated incumbent (p. 322). In the absence of scope economies, the unintegrated newcomers will suffer no disadvantage vis-à-vis their integrated predecessor. Moreover, bankers would be delighted to finance companies entering profitable lines of business. "It is hard to follow the assertion that there is a particularly high degree of uncertainty when an industry is 'occupied by vertically integrated firms enjoying the fruits of their fewness.' It is precisely the presence of those fruits that makes entry attractive and less uncertain" (p. 323).

Bork also deploys his logic to criticize an argument he attributes to Areeda regarding the impact of vertical integration on the pace of innovation. Areeda had observed that an upstream monopolist might be induced to integrate forward in order to retard innovation at the downstream stage. Bork rejects the claim in these terms: "the loss of innovativeness is as much a cost to the vertically integrating monopolist as it is to society. Any ingot monopolist selling to competitive fabricators will want his customers to be as vigorous, imaginative, and active as possible, because their success will enable him to sell them more ingot at a monopoly price. . . . If he thinks the benefits outweigh the costs, there is no reason for antitrust to second-guess him" (pp. 242–43).

In Robert Bork's world, then, output restriction is the sole reason for proscribing mergers, and output restriction can be expected from only a few horizontal mergers. Most mergers are prompted by the desire to realize economies of scale or scope. Such economies appear on social as well as private ledgers of gain. No wonder Borkland rarely spawns mergers in need of policy treatment.

# The Adequacy of Bork's Logic

Bork's prescriptions for antitrust policy depend critically on his conceptions of social welfare and market power. Unfortunately, he shrivels the concepts of equity and market power; and he oversimplifies certain theorems of welfare economics to the point of inaccuracy.

### Social Welfare

The meaning of equity. Bork divides social welfare into matters of equity and matters of efficiency. Equating equity with the distribution of income, and observing that all economic activity redistributes income, he asserts that any "choice between two groups of consumers . . . should be made by the legislature rather than by the judiciary" (p. 111).

Even if we accept Bork's view that maldistribution of income should be treated by policies other than antitrust, we can disagree with his decision to focus antitrust exclusively on efficiency. To define equity solely in terms of income is to define the concept naively narrowly. Equity also embraces the concept of procedural fairness, in political as well as in economic life, and judicial activity has been inspired far more and far longer by fairness than it has by efficiency.

Fairness is adjudicated most easily and most appropriately when social consensus has been achieved as to what is fair. Whatever the consensus on the fairness ranking of various distributions of income, there may be substantial consensus on such elements of political equity as "one man, one vote" or "equal protection of the laws." To the extent that market power affects the distribution of political influence as well as the distribution of income, antitrust authorities might properly be instructed to attack market power even if society cannot agree that the monopolist's income is unjust.

The standard argument supporting linkages between political and economic power is that contained in the logic of collective action (Olson 1965). Due to the free-rider problem, benefits accruing to the many tend to be represented less effectively than are benefits flowing to the few. Hence concentrated industries tend to secure government's sweetest favors. Bork is aware of the argument, at least in Areeda's version, yet he discusses it as if he did not understand it (p. 240).

The meaning of allocative efficiency. Bork equates allocative efficiency with maximization of output in partial-equilibrium settings. He does so when he asserts that antitrust policy should aim at preventing output restriction. Bork recognizes that in a world of second-best, restrictions of output at the industry level may be socially efficient (p. 113). What he does not appear to recognize is that even a first-best world may sport monopolists who overproduce certain commodities (Adams and Yellen 1976). The oracle of allocative efficiency does not instruct us to tolerate any monopolist who appears to abhor output restriction in a specific situation.

The likelihood of productive inefficiency. In focusing on output restriction, Bork implicitly reveals his belief (widely shared) that no profitmaximizing firm, not even a monopolist, will employ inefficient methods of production. Once again, Bork relies too readily on intermediate levels of economic theory. Profit maximization does not guarantee productive efficiency in environments displaying market power. Williamson (1986) and Salop and Scheffman (1983) describe persuasively how established firms might deliberately pad their costs so as to raise the costs of rivals even further. Let me adduce two further examples, both involving merger, and both involving technological change.

The first is the example attributed by Bork to Areeda and mentioned

above. In it, an upstream monopolist integrates forward to prevent technological change downstream. As we saw, Bork asserts that technological change downstream will be desired as much by an upstream monopolist as by society itself. Suppression of technological change cannot, therefore, be the motive for forward vertical integration.

This argument depends on spinach-strong assumptions. In particular, it assumes that the innovation alters demand for the monopolist's (upstream) product in such a manner that expansion of output downstream augments demand upstream. If this condition fails to obtain, the monopolist may gain from forward integration. After integrating, his choice between burial and adoption of the innovation depends on a host of factors, including the likelihood that other sellers downstream can free-ride on the new technology once it is introduced.

The second example involves backward integration to retard innovation. Consider a monopolist of long-distance telephone service between two points. Current states of technology and demand render the monopoly natural in the sense that marginal cost is falling in the region of market demand. Producers of telephone equipment, however, are experimenting with new systems of transmission. One of these not only reduces unit cost at each rate of operation but also shrinks minimum efficient scale. Given market demand, the new technology would permit several companies to provide service without sacrifice of productive efficiency. As a result, natural barriers to entry would evaporate and suppliers of telephone services would earn competitive rates of return. If acquisition of upstream tinkerers retards or prevents the innovation, the downstream monopolist may gain even though society loses.<sup>13</sup>

This example can be interpreted as a form of rent-seeking activity. Such activity is undertaken quite frequently—so frequently that even Judge Posner acknowledges its importance.<sup>14</sup> The pursuit of economic rent can break the one-to-one correspondence between productive efficiency and profit maximization. And yet Bork refuses to admit the policy consequences of the phenomenon (pp. 112–13).

Distributive efficiency. Distributive inefficiency occurs when existing output can be reassigned among consumers so as to enhance the utilities of some without detracting from the utilities of others. As long as each unit of a given product is offered for sale at the same price, or as long as each consumer is charged no less than his reservation price for each unit

<sup>&</sup>lt;sup>13</sup> If natural monopolists are regulated, the argument continues to hold in principle unless regulators prevent realization of any monopoly profit.

<sup>&</sup>lt;sup>14</sup> According to Posner (1976, p. 11), traditional analysis of monopoly "ignored the fact that an opportunity to obtain a lucrative transfer payment in the form of monopoly profits will attract real resources into efforts by sellers to monopolize, and by consumers to prevent being charged monopoly prices. The costs of the resources so used are costs of monopoly just as much as the costs resulting from the substitution of products that cost society more to produce than the monopolized product."

he contemplates buying, distributive efficiency is assured. Where natural or institutional conditions permit firms with market power to discriminate, but only imperfectly, distributive inefficiency is likely to occur. Given the prevalence of imperfect price discrimination, Bork should treat it explicitly. Since imperfect discrimination restricts output in his sense, I presume that Bork would attack mergers that increase its virulence.

#### Market Power

The Clayton Act prohibits mergers that might lessen competition substantially or tend to create a monopoly. Neither preservation of small business nor promotion of economic efficiency is mentioned explicitly in the statute. A sound approach to merger policy should begin with a sophisticated understanding of competition and monopoly.

All profit-maximizing enterprises aspire to monopoly. Few, however, succeed unilaterally in removing the elasticity from their demand curves. Most must hope simply to share a dominant position; and collective monopolists must cooperate, implicitly or explicitly, to reap their profits.

In most market environments, however, firms also experience incentives to defect from cooperative behavior. The tension between incentives to cooperate and incentives to defect on agreements creates uncertainty about market outcomes. Believing that market environments determine the relative strengths of the two incentives, and hence the probabilities associated with various forms of behavior, students of industrial organization devote much of their attention to identifying environmental traits that are conducive to competition.

Many believers in the behavioral impact of environment agree with Bork that markets can be analyzed independently when hunting for predictors of cooperative behavior. Seller concentration, product differentiation, the market share associated with operation at minimum efficient scale, and the ratio of fixed to variable cost in the short run are considered the most important determinants of actual and potential competition, and each of these elements of market structure appears suitable for examination without reference to conditions in other markets.

I do not wish to assail the importance of accepted predictors of market performance. Countless studies have verified their importance. On both theoretical and empirical grounds, however, I do wish to question the contention that the likelihood of cooperation or entry in specific markets fails to depend on the integration patterns of those who inhabit them. Consider first the issue of cooperation.<sup>15</sup> Suppose that each of several competitors in a given market must choose between the monopoly price and another price halfway between monopoly and competition. If each believes that the rest will match (instantaneously) its price, then all will choose the monopoly price—effecting thereby the cooperative outcome. But how does the firm acquire expectations regarding the behavior of rival sellers? How does it establish its conjectural variations in price or output? Experience within the market surely counts. If the seller meets its rivals in other markets, however—especially in markets of similar structure and technology—then experience in those other markets also matters. Just as there might be technological economies of scope, so there might be informational economies of scope which give rival oligopolists a better understanding of what to expect from each other.

Information is not the only advantage of parallel integration. Parallel oligoply may permit rivals to economize on damage deposits against defection, to identify more cheaply those who do defect, to punish defectors at more favorable ratios of enforcer benefit to enforcer cost, and to avoid side payments detectable by antitrust authorities.<sup>16</sup>

Patterns of integration also affect the correspondence between entry and competition. The typical entrant in oligopolistic markets is already engaged in other lines of business. If established sellers in its new market happen also to operate in its other markets, the entrant might be cooperating already with its new rivals. Such cooperation might facilitate further cooperation in the new market. In a world of parallel integration, entry does not always vitalize competition appreciably.

Parallel integration is just one of many reasons to believe that horizontal dominance does not by itself determine power levels. For our purposes, however, it suffices to make the point that antitrust authorities should not believe that economic theory justifies benign neglect of all but horizontal mergers.

The real problem with Bork's conception of economic theory is his failure to appreciate the grounding of strong propositions in strong assumptions. Many of his "economic" assertions are true under certain circumstances. Most, however, are false in a wide range of plausible situations. It is intellectually inappropriate, therefore, to employ such sweeping language as "Basic analysis shows that there is no threat to competition in any conglomerate merger," (p. 246) or, "Antitrust's concern with vertical mergers is mistaken. Vertical mergers are means of creating efficiency, not of injuring competition. There is a faint theoreti-

<sup>&</sup>lt;sup>15</sup> For a fuller account of the theories presented here, see Adams (1974).

<sup>&</sup>lt;sup>16</sup> In addition to Adams (1974), see Krattenmaker and Salop (1986) and Bernheim and Whinston (1987).

cal case, hardly worth mentioning, that vertical mergers can be used by very large firms for purposes of predation under exceptional circumstances, but it is highly doubtful that that narrow possibility has any application to reality" (p. 226). Bork's unwillingness to refrain from such rhetoric makes it difficult to reject the hypothesis that his views are rooted more in ideology than in social science. The criticism he pins on others—that one logical demonstration reveals nothing about the workings of the world—applies to him in spades.<sup>17</sup>

## *Empirical Evidence Bearing on the Bork Approach*

Bork apparently believes that antitrust policy can be formulated on the basis of logic alone, for he offers no empirical support for his views. One should not infer, however, from his taste for the a priori that such evidence fails to exist. In this section, I shall report briefly the results of some studies that impugn the adequacy of Bork's framework.

### Horizontal Mergers

Bork does not attempt to justify his threshold standard for horizontal mergers with empirical evidence on the relationship between market share and market power. And yet, such evidence does exist.

Several early studies suggested that, across manufacturing industries, market share of leading sellers does correlate positively with longrun profitability—even at market shares below the threshold adopted by Bork for government intervention.<sup>18</sup> Unfortunately, profitability has been interpreted by some as a reward to productive efficiency, rather than as a sign of market power; so the policy implications of these studies appeared ambiguous.

More recent evidence from the airline industry suggests that profitability rises with market share even after costs are controlled. As in the early studies, the effect of market share appears well before the threshold picked arbitrarily by Bork. This evidence merits description in some detail.

Airline service between two given cities might appear to exemplify a contestable market. If existing providers of service attempt to raise prices above cost, other established airlines—not to speak of brand-new

<sup>&</sup>lt;sup>17</sup> "We have built up an extraordinarily severe law on the basis of speculation alone, and demonstrably empty speculation at that" (Bork 1978, p. 234).

<sup>&</sup>lt;sup>18</sup> "PIMS data studies reveal that increasing sample businesses' market share from 10 to 50 percent led on average to a doubling of ROI—from 16 to 32 percent" (Scherer 1980). The PIMS data set was utilized in a series of studies undertaken at the Harvard Business School. ROI denotes return on investment.

carriers—can enter the market with ease (Bailey, Graham, and Kaplan 1985). Even at the four airports where regulatory constraints on landings and takeoffs are binding, individual authorizations (slots) can be purchased for surprisingly small sums—\$500,000 to \$750,000, according to Borenstein (1987a, p. 16). As a result, even high levels of concentration might be expected to result in competitive behavior and performance. Bork's retinue might be hard-pressed to brand any horizontal merger between airlines as anticompetitive; they would certainly not leap to curb mergers resulting in market shares below Bork's trigger level.

Borenstein (1987a) estimated the determinants of revenue per passenger mile on actual trips undertaken in the United States during the fourth quarter of 1985. His explanatory variables include elements of cost (distance associated with each ticket coupon used en route, volume of traffic handled by the carrier at each airport en route); elements of market power (market share of the carrier at the initial and ultimate airports, concentration in a few rival airlines of traffic not handled by the carrier at those two locations, existence of regulatory constraints on landings and takeoffs at the two locations), and a few other variables (for example, the ratio of actual to non-stop distance between origin and destination). These factors explain 70 percent of the variance among trips in revenue per mile.

Flight-specific costs do affect revenue per mile: the longer the flight, the lower the revenue per mile. Similarly, airport-specific costs of a carrier also affect revenue per mile: the greater the carrier's traffic at stops en route, the lower the revenue per mile.

Market Share	Fare Premium
(Percent)	(Percent)
10 to 20	9.5
20 to 30	17.6
30 to 40	34.8
40 to 50	27.8
50 to 60	46.9
60 to 70	44.3
70+	44.9

For example, raising market share from less than 10 percent to between 30 percent and 40 percent, other things equal, would, on average, raise revenue per mile by 35 percent. Beyond market shares of 50 percent to 60 percent, revenue per mile no longer rises with the proportion of traffic controlled by the carrier. By that point, however, revenue per mile is more than 40 percent above what it would have been (other things equal) at market shares under 10 percent. In other words, the marginal impact of market share on market power is greatest in the range of

market share that fails, according to Bork, to warrant control of mergers.

Market share is not the only determinant of market power revealed in Borenstein's study. Other things equal, including market share, revenue per mile is significantly greater when the origin or destination is a slot-constrained airport. Moreover, residual seller concentration—concentration of that part of the market not handled by the carrier—impinges positively on the carrier's revenue per mile. The sign of this coefficient is consistent with the existence of cooperation among rival carriers.<sup>19</sup>

Borenstein's results indicate that barriers to new competition in route-specific markets are substantially greater than believers in the contestability of markets might predict.<sup>20</sup> Frequent flyer programs, coupled with the mechanics of computer-based reservation systems controlled by leading carriers, reduce cross-price elasticities of demand between carriers. Passengers tending to fly to or from a small set of locations will find it both convenient and (for business travel, at least) advantageous to fly primarily with the leading airlines serving those locations. Under these circumstances, marginal entry may not be profitable. Unless a new provider of service is willing to establish a density of flights comparable to those of significant incumbents, it is unlikely to match their profits; and yet most airports handle insufficient traffic to serve as hubs for multiple airlines.

The importance of radical (as opposed to marginal) entry also explains the low price charged for the right to land at a slot-constrained airport. A major attraction of serving a slot-controlled airport is the desire to exercise market power. But market power requires nontrivial market share—market share in excess of that associated with a single slot. To acquire market share sufficient to achieve some modicum of power requires multiple slots, and the price per slot certainly rises with the number of slots demanded.

Notice the analogy to a standard observation in the takeover literature. Those who acquire quoted companies tend to pay substantial premia over current market prices. They do so because they wish to acquire more than rights to receive dividends and capital gains: their aim is to control the target company, and control implies ownership of a substantial fraction of the target's stock.

The conclusion to be drawn from work of Borenstein and others is that horizontal mergers injure competition even when combined market

<sup>&</sup>lt;sup>19</sup> It is also consistent with the view, endorsed by Bork, that giants do not trample upon pygmies. The position of the giant is most advantageous when the giant faces a cloud of atomistic competitors. Power exercised against the interest of the fringe would imply a negative sign on the coefficient associated with residual concentration.

<sup>&</sup>lt;sup>20</sup> Other studies confirm the relationship between seller concentration at the airport level and fares. See Kaplan (1986, p. 64); see also the studies of Morrison and Winston (1986 and 1987).

share falls well below the Bork threshold and even when casual observation suggests barriers to entry are low. Discounts to frequent flyers and preferential positioning in computer-based reservation systems are the kinds of practices that led Chief Justice Warren to endorse (in *Brown Shoe*) the congressional view that "a merger has to be functionally viewed, in the context of its particular industry."<sup>21</sup>

## Non-Horizontal Mergers

Empirical evidence also supports the proposition that intermarket relationships affect the state of competition. Heggestad and Rhoades (1978) examined instability between 1966 and 1972 in the market shares of the three leading commercial banks in each of 187 Standard Metropolitan Statistical Areas. Arguing that instability of share is directly related to the degree of rivalry, and hence to the vitality of competition, they hypothesized that such instability should correlate negatively with seller concentration (three-bank level), positively with growth of deposits in the market (1966–72), negatively with such institutional constraints on competition as regulation of branching, and-if parallel integration affects the degree of cooperation-negatively with the number of times leading sellers in the market (the top five) meet each other elsewhere in the state. Heggestad and Rhoades test several versions of the multimarket contact variable, ranging from inclusion of all contacts to inclusion only of contacts in (a) large markets or (b) markets where the two firms collectively exhibit a large market share in relation to leading sellers. They also distinguish situations where high counts of interaction occur because a few firms meet each other in many places from situations where high counts occur because many firms meet each other in a few places. All explanatory variables display the predicted sign. In every version, the multimarket contact variable differs negatively from 0 at the .10 level of statistical significance.<sup>22</sup>

The findings of Heggestad and Rhoades are consistent with those in other studies of parallel integration in banking (Solomon 1970; Rhoades and Heggestad 1985). They are also consistent with evidence based on a

<sup>&</sup>lt;sup>21</sup> 370 U.S. 294, at 321–322.

<sup>&</sup>lt;sup>22</sup> When multimarket contact is measured only in markets where the two sellers enjoy a combined market share of at least one-third the market share of the three largest sellers, and where it weights multiple contacts among a few firms especially heavily, the coefficient differs negatively from 0 at the .05 level of statistical significance.

cient differs negatively from 0 at the .05 level of statistical significance. <sup>23</sup> Feinberg (1985, p. 225) concludes: "At the company level the evidence supports the theory, showing sales-at-risk, a measure of the importance of multimarket contacts, to increase price-cost margins in the moderate range of concentration where collusion is feasible but difficult to achieve without mutual forbearance. The industry-level results are weaker, casting some doubt on the hypothesis." Similarly, Scott (1982, p. 375) observes: "The results imply that multimarket contact does have an impact on performance . . . conditional on high concentration, it is associated with higher profits . . ."

full spectrum of manufacturing industries.<sup>23</sup> The market-power consequences of multimarket contact might even explain the finding that integration tends to be most profitable when a firm extends its product line into areas relatively close to home (Rhoades 1973 and 1974): the farther afield the new activity, the less likely is further contact with established rivals.<sup>24</sup> Although multimarket contact deserves a good deal more empirical study, we may conclude provisionally that parallel integration might well enhance market power. Mergers that fail to influence the degree of horizontal dominance can nevertheless impair competition.

Apart from reminding antitrust authorities that merger policy should not ignore vertical and conglomerate mergers, the conception of market power advanced here has certain practical virtues. In the Bork approach, a merger must be horizontal or it cannot harm competition.<sup>25</sup> If it can be shown that the merging firms operate in different markets, and that plenty of potential competitors exist, the merger will almost assuredly pass scrutiny. On the other hand, if the merger involves two competitors, and their market shares are significant, the merger may well be challenged. As a result, lawyers are encouraged to devote all their efforts to defining relevant markets in advantageous mannersopponents of the merger seeking either narrow definitions to show large market shares or broad definitions to show similarities of product. Once it is recognized that mergers with horizontal effects are not the only ones that might jeopardize competition, greater attention can be devoted to improving our understanding of how any type of merger might be anticompetitive. Economists and lawyers alike will be liberated to search without blinders for the specific traits of market and company structure associated with the exercise of market power.

Unintentionally, the approach to market power adopted here provides Justice Black with a logically coherent justification for his predisposition to favor small business. Black emphasized the single-store characteristic of small groceries. But firms with single shops are firms that have not integrated into several grocery markets. They cannot have engaged in parallel integration with rival stores. Their scope for cooperation may be small in comparison with that available to firms with identical market shares but different propensities to intersect in a plethora of geographically distinct markets.

At the same time, the doctrine of parallel integration would provide followers of Bork with a compelling justification for allowing Von's to acquire Shopping Bag. Neither chain operated in multiple retail markets

<sup>&</sup>lt;sup>24</sup> As Ravenscraft (1987) observes, this finding can also be explained by economies of

<sup>&</sup>lt;sup>25</sup> In both the 1982 and the 1984 merger guidelines, competitive injury is discussed under two headings: horizontal mergers, and horizontal effects of non-horizontal mergers.

(unless one considers Los Angeles itself to comprise multiple markets). Even combined, the two confined their activities to a single metropolitan area. Thus, even if parallel integration merits government intervention, the concept should be applied to a Safeway, a Krogers, or an A&P.

Parallel integration applies as much to banking as to food retailing. It might have provided a strong argument for prohibiting Seattle's National Bank of Commerce from acquiring the Washington Trust Bank of Spokane, as described in *Marine Bancorporation*.<sup>26</sup> Ironically, however, Black's eagerness to defend small business on weak terrain prevented such an experiment.

# An Agenda for Students of Merger Policy

During the next decade, the distribution of mergers by type and by industry is likely to change appreciably. As a result, antitrust authorities will be obliged to ponder the competitive effects of mergers in relatively unfamiliar situations. It is important to anticipate some of the issues that will arise.

(1) Joint ventures. We are likely to witness the proliferation of partial mergers—joint ventures created for nominally limited purposes.<sup>27</sup> NUMMI, the offspring of General Motors and Toyota, exemplifies the joint venture engaged in production. Especially challenging, however, will be the treatment of joint ventures engaged in inventive activities (Grossman and Shapiro 1986). The antitrust laws have already been relaxed legislatively on behalf of cooperative research.<sup>28</sup>

(2) Crisis mergers. Just as *Appalachian Coals*<sup>29</sup> once justified the formation of crisis cartels—cartels born amidst severe macroeconomic contraction—so there will be calls to permit horizontal merger of companies not yet threatened with bankruptcy but faced nonetheless with the collective necessity of major structural adjustment. The steel industry is a likely case in point.<sup>30</sup>

(3) Mergers in deregulated industries. Antitrust law tends to impinge lightly on regulated industries. Even so, regulated industries tend not to experience heavy doses of merger. Upon deregulation, however,

- <sup>28</sup> National Cooperative Research Act of 1984, PL 98-462.
- <sup>29</sup> 288 U.S. 344 (1933).

<sup>30</sup> In 1968, Wheeling (#10) merged with Pittsburgh (#16). In 1971, Jones & Laughlin (#7) merged with Youngstown (#8). In 1983, LTV added Republic to a steel portfolio which already included Jones & Laughlin/Youngstown. Meanwhile, however, U.S. Steel was prevented from acquiring National Steel.

<sup>&</sup>lt;sup>26</sup> 418 U.S. 602 (1974).

<sup>&</sup>lt;sup>27</sup> Since 1918, export cartels enjoy statutory exemption from antitrust prosecution under the Webb-Pomerene Act. Although few in number, such associations tend to link producers inhabiting concentrated industries.

merger activity can escalate sharply.<sup>31</sup> "Thus, deregulation has the potential to be a major determinant of the current merger wave" (Ravenscraft 1987).

Given the flux in economic circumstance, even restoration of the status quo ante in merger policy would not suffice to guarantee highquality competition. Future merger policy will of course require refinement of our theories of market power; and, in response to demand, theoretical papers will sprout. In all probability, however, these will establish that mergers of a given type are likely to increase social surplus in some circumstances but reduce it in others. The most important step, therefore, in our preparation for the future is to abandon the ideological approach to antitrust, exemplified by Robert Bork, and to recognize the importance of seeking empirical evidence on the sources and uses of market power. Given the height of the present merger wave, this search must not be delayed.

The papers presented at this conference certainly help us to appreciate the limitations of a priori speculation. Richard Caves providés us with strong evidence that ex ante valuations of company stock predict poorly the efficiency gains associated with mergers. His evidence supports the position that mergers that injure competition may be proscribed without undue fear—as expressed in the current merger guidelines—that productive efficiency will be jeopardized.

Caves also points out that the empirical foundations of merger policy may be fashioned from foreign as well as domestic materials. In fact, international evidence has two major virtues in the present context.

First, the rich countries have adopted a continuum of approaches to merger: Some have renounced all (antitrust) regulation; others have chosen modest levels of intervention; only a few are said to bridle mergers sharply.<sup>32</sup> Consider, for example, last year's treatment of mergers in Europe:<sup>33</sup>

• France: No mergers were prohibited under national antitrust rules.

<sup>33</sup> The following evidence is taken from EC Commission (1987).

<sup>34</sup> The case involved acquisition of one German producer of industrial gases (Agefko Kohlensaueare Industrie) by another (Linde). The cartel office subsequently allowed L'Air Liquide, a major French producer of gases, to acquire Agefko. Claiming inadequacy of German statute, the cartel office reluctantly approved the acquisition of AEG by Daimler Benz.

<sup>&</sup>lt;sup>31</sup> Mergers contemplated and consummated in the airline industry are reported in Levine (1987) and Borenstein (1987b). More generally: "All of these [deregulated] industries—banking, broadcasting, communications, transportation, and oil and gas—have experienced a substantial amount of merger activity in the 1980s. According to W.T. Grimm's figures, these five industries accounted for 37 percent of all merger activity by value of assets and 22 percent of the number of mergers, between 1981 and 1986" (Ravenscraft 1987).

<sup>&</sup>lt;sup>32</sup> For France, see Act No. 77-806 of July 19, 1977, title II; for Germany, see the Act against Restraints of Competition of 27 July 1957, section 24, as amended in 1973; for Japan, see the Act Concerning Prohibition of Private Monopoly and Maintenance of Fair Trade (Act No. 54 of April 14, 1947), Chapter IV, section 10; for the United Kingdom, see, Fair Trading Act 1973, part V. All appear in English translation in Organization for Economic Cooperation and Development (1981).

- Italy: No mergers were prohibited under national antitrust rules.
- Germany: The Federal Cartel Office prohibited one merger;<sup>34</sup> 11 were abandoned voluntarily after intervention by that agency.
- United Kingdom: The Director-General of Fair Trading advised the Secretary of State on 293 mergers; the Secretary of State referred 13 mergers to the Monopolies and Mergers Commission (six of these were then abandoned voluntarily); and the Monopolies and Mergers Commission issued six reports, two of which concluded that the merger being considered would operate against the public interest.<sup>35</sup>
- European Communities: The EC Commission continued its 13-yearold effort to gain approval by the Council of its draft regulation on merger control. Currently, mergers covered by the Treaty of Rome can be prohibited only if they reinforce (as opposed to create) a dominant position.<sup>36</sup> Even this limited weapon has been used sparingly:<sup>37</sup> Between June 1985 and May 1986, the 1,000 largest companies in the European Communities engaged in 296 mergers and an additional 163 acquisitions of minority holdings. None in either category was challenged on antitrust grounds.

Coupled with North American and Japanese evidence, the European record should help us to unlock the impact of antitrust policy on the frequency of merger and the structure of relevant markets.

The second virtue of international evidence on merger policy stems from the fact that each merger issue of the future—joint ventures in production and research, mergers to combat structural imbalance, and the relationship between mergers and regulation—has been or is being debated vigorously abroad.<sup>38</sup>

Joint ventures of various forms have been scrutinized frequently under the antitrust laws of the European Communities. A good example, in light of current interest in cooperative R&D, is the Henkel/Colgate case.<sup>39</sup> These two large manufacturers of personal and home care products decided to create a joint venture to explore new technologies relevant to household detergents. The agreement left each party free to employ the joint venture's discoveries in any way it pleased and to engage in R&D on its own. Within the European Economic Community

 <sup>&</sup>lt;sup>35</sup> One involved the acquisition of Mitel by British Telecom (Cmnd 9715, January 1986). The other involved merger of General Electric Co. (GEC) and Plessey (Cmnd 9897, August 1986).
<sup>36</sup> Europemballage Corporation and Continental Can Company Inc. v. EC Commis-

 <sup>&</sup>lt;sup>36</sup> Europemballage Corporation and Continental Can Company Inc. v. EC Commission, [1973] CMLR 199.
<sup>37</sup> So sparingly, in fact, that a recent British effort to enjoin a prospective merger

<sup>&</sup>lt;sup>37</sup> So sparingly, in fact, that a recent British effort to enjoin a prospective merger (Argyll Group plc & Others v. Distillers Company plc) on the grounds that it contravened Article 86 EEC "was refused on grounds of uncertainty and convenience." (EC Commission 1987, point 200).

<sup>&</sup>lt;sup>38</sup> Another relevant issue—the importance of foreign competition when defining market boundaries—has been considered routinely in antitrust proceedings abroad.

<sup>&</sup>lt;sup>39</sup> Re Henkel-Colgate, December 23, 1971, JO 1972 L14/14.

as a whole, the two accounted for 37 percent of detergent sales. In particular countries of the community, one or the other accounted for more than 50 percent of such sales. Together with Unilever and Procter & Gamble, the two accounted for a large majority of European sales of most products in their lines.

The EC Commission allowed the venture to stand, even though it restricted competition. The Commission justified its decision by arguing that the joint venture promoted technical progress, allowed consumers to share in the benefits, restrained competition no more than necessary, and restrained competition insubstantially.

Subsequent to Henkel/Colgate, the Commission has introduced a block exemption for agreements relating to R&D, whereby cooperative inventive activity enjoys automatic exemption from EC antitrust law as long as it meets certain criteria.<sup>40</sup> Ventures that fail to qualify for block exemption remain eligible for individual exemption. Early indications suggest that the block exemption will be accorded sparingly.<sup>41</sup>

Crisis mergers have also been scrutinized by the Commission,<sup>42</sup> especially the steel mergers covered by Article 66 of the Treaty of Paris.<sup>43</sup> Such mergers have occurred frequently; they often include producers accounting for major fractions of national output.<sup>44</sup> To my knowledge, no steel merger has been blocked by the Court of Justice. The European strategy of managed merger and contraction of the steel industry (the Davignon Plan) has in fact been accompanied by reductions of capacity,<sup>45</sup> but the causal relationship between policy and structural change remains untested.

<sup>&</sup>lt;sup>40</sup> Regulation (EEC) No 418/85 of December 19, 1984 (OJ L 53, 22.2.1985), which took effect in March 1985.

<sup>&</sup>lt;sup>41</sup> See, for example, the treatment of an agreement between BP International Ltd and MW Kellogg Company, decision of December 2, 1985 (OJ L 369, 31.12.1985).

<sup>&</sup>lt;sup>42</sup> The Commission has also investigated swapping of lines of business between firms. See its decision of 4 December 1986 (Of L 5, 7.1.1987) in the matter of ENI/Montedison.

<sup>&</sup>lt;sup>43</sup> The EC Commission enjoys explicit authority to regulate mergers in industries covered by the European Coal and Steel Community; the Treaty of Rome, instituting the European Economic Community, does not identify merger as an antitrust offense. In Continental Can, however, the Court of Justice of the EC held that mergers can be considered abuses of dominant position and hence illegal under article 86 of the Treaty of Rome. Since 1973, the Commission has been seeking approval by the Council of explicit merger rules (EC Commission 1986, p. 47).

<sup>&</sup>lt;sup>44</sup> During 1985, for example, the Commission approved 7 of 7 mergers covered by the rules of the ECSC (EC Commission 1986, pp. 86–89). <sup>45</sup> See, for example, EC Commission 1986, p. 152, table 5.

Finally, for the past several years, the EC Commission has devoted considerable attention to the state of competition in air transport.<sup>46</sup> Until now, the Commission's efforts have aimed at relaxation of national controls on the freedom of carriers to price as they please.<sup>47</sup> Given the trend toward privatization of national carriers and development of joint operating agreements, however, the Commission may be called upon shortly to evaluate mergers in this industry. At the national level, British antitrust authorities have just decided to allow the recently privatized British Airways to acquire British Caledonian Airways, even though British Airways already accounts for 83 percent of Britain's "international scheduled aviation market" and absorption of British Caledonian would boost that figure to 95 percent.<sup>48</sup>

Foreign evidence must be interpreted with care. Mergers that fail to injure competition in foreign settings may injure competition here, and vice versa. Nevertheless, it is myopic to ignore the experience of other rich market economies. Many (but by no means all) features of European legislation, regulation, and interpretation reflect apparent adherence to maxims encouraging relaxation of merger control. As a result, the impact on competition of policies proposed for the United States can be evaluated empirically. Far be it for me to draw conclusions from research not yet performed, but I suspect that foreign evidence would confirm the importance of shedding our current tolerance of anticompetitive mergers.

<sup>&</sup>lt;sup>46</sup> See EC Commission, Civil Aviation Memorandum No. 2, March 15, 1984 (OJ C 182, 9.7.1984).

<sup>&</sup>lt;sup>47</sup> In many EC countries, airline fares must be approved governmentally before they can be implemented. On international routes, served typically by at least one carrier from each country, "competing" airlines tend to set prices cooperatively before submitting their requests to relevant national authorities. Some such authorities encourage—others go so far as to require—the cooperation. On July 18, 1986, the EC Commission attacked this method of pricing as a violation of the Rome treaty. The EC Court of Justice then held (Ministere Public v. Asjes and Others, OJ C 131, 25.9.1986 ["Nouvelles Frontieres"]) that the treaty's rules of competition do apply to transport, but that enforcement would remain with national governments until the council signed the necessary enabling rules. Although obliged in principle to abide by the pro-competition philosophy of the treaty, and although subject to investigation by the EC Commission, national governments remain free in practice to maintain existing modes of cooperation.

<sup>&</sup>lt;sup>48</sup> *The Economist*, July 25, 1987, p. 15, and November 14, 1987, pp. 64-65. British Airways must surrender its licenses to serve certain routes (although it may apply for them anew) and it must surrender takeoff and landing slots at Gatwick airport, "many of which it might well have given up anyway." *The Economist*, November 14, 1987, p. 64.

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# Discussion

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Jim Adams's paper appears to be a revival of the populist antipathy towards combinations among large firms. Adams asks us to reconsider merger policy because these large firms *might* acquire greater political power, *might* affect the distribution of income, and *might* distort resource allocation through mergers and takeovers.

There is very little reference in the paper to the vast body of industrial organization research that helped to reverse the 1960s (and later) tide of increasing legal attacks on mergers of all sizes and descriptions. Nor does Adams provide any new body of research that shows these earlier studies to be flawed. Indeed, the paper even overlooks some recent research that could be mustered in support of Adams's abhorrence of mergers.

# The Requisites for a Revival of Antimerger Policy

If I were launching an attack on the recent permissive trend towards mergers by antitrust authorities in both Democratic and Republican administrations, I would need at least the following ammunition to throw at the enemy:

(1) Evidence that there has been an increase in either market concentration, aggregate concentration, or parallel integration in the U.S. economy.

(2) Evidence that mergers have contributed to this increase in concentration.

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(3) Evidence that the increase in concentration is likely to result in a decrease in economic welfare.

(4) A pragmatic rule that would allow antitrust authorities to intervene to stop socially undesirable mergers while allowing useful consolidations, takeovers, and acquisitions to be consummated.

Without a doubt, this is a large order, but I do not think that Adams has even begun to supply the needed firepower for a revival of the populist antipathy towards mergers. In my view, the "new learning" in industrial organization escapes from his assault relatively unscathed. Let me elaborate by examining each of the above requisites.

# Changes in Concentration

Nowhere in Adams's paper is there reference to a dangerous increase in or even a dangerous level of market concentration, parallel integration, or aggregate concentration. Certainly, part of the populist fuel for antimerger policy in the 1960s was a belief that Exxon, General Electric, IBM, and General Motors would some day control the world. Aggregate concentration in manufacturing (however relevant or irrelevant such a concept may be) was rising dramatically from 1947 through 1966. The largest 50 firms accounted for 17 percent of manufacturing value added in 1947. By 1966, the largest 50 firms (a somewhat different group) controlled 25 percent of value added. The share of the largest 200 manufacturing firms rose from 30 percent to 42 percent in the same period.

During the 1950s and the 1960s, average concentration within individual manufacturing industries was also rising, but at a glacial pace. Nevertheless, readers of Servan-Schreiber or Galbraith might have been excused if they held to a belief that large industrial giants were increasing their dominance of most of the world's important markets.

Obviously, the world has changed. Aggregate concentration in U.S. manufacturing in the 1980s is almost exactly where it was in 1966. In services such as banking, U.S. firms have sagged badly relative to the rest of the world. Whatever the current average level of market concentration in U.S. manufacturing, it means very little unless assessed in the context of global competition. Americans are not now worried about the market dominance of leading firms in U.S. manufacturing—they are worried that these wimpy giants cannot compete with Korean, Japanese, German, or Taiwanese firms.

Adams provides us with no new data for the intellectual heirs of Servan-Schreiber to gnaw upon. There is nothing in this paper to suggest that concentration is rising—that market dominance is increasing in U.S. industries. There is nothing to suggest that multinational, conglomerate firms are acquiring greater economic, social, or political power. Why then should we be concerned about mergers?

# The Effects of Mergers on Concentration

Mergers might increase market concentration or aggregate concentration, and they may lead to greater parallel integration. But is there any evidence of these effects from the recent merger waves? Note that the merger boom of the 1960s does not seem to have led to major increases in concentration in the U.S. economy in the 1970s or 1980s. Even where mergers have reduced the number of competitors in an important industry—such as steel or automobiles—U.S. firms hardly seem poised to extract large monopoly rents, because of competition from foreign producers (unless we close the doors to imports). Nor does it appear that the current wave of large and sometimes hostile takeovers or mergers has increased concentration perceptibly.

Work by Ravenscraft and Scherer may help to explain why mergers have not had these effects upon concentration. They have found that a large share of acquisitions work out poorly for the acquiring company in the long run. Over time, a large share of these acquisitions are spun off because they perform so badly within the merged firm.

Nor have recent mergers contributed much to aggregate concentration or parallel integration. Indeed, Ivan Boesky and T. Boone Pickens are not IBM or Exxon. Nor do they appear to be seeking to increase the degree of vertical integration of their targets. If anything, they are moving in the opposite direction.

# The Dangers of Concentration

Even if mergers were increasing U.S. market concentration or aggregate concentration, Adams provides us with little that is new that would cause us to fear such a trend. He only mentions in passing the "new learning" in industrial organization that provides the intellectual underpinnings of current merger policy. He offers us a rather paltry array of new studies that may be seen to be taking issue with this research. First, he cites a study by Borenstein, prepared as advocacy testimony in a merger case, to suggest that concentration affects prices. He would have done better to emphasize the work of Morrison and Winston, now only briefly referred to; they demonstrate rather persuasively (in refereed works) that airline market concentration matters. However, invoking his own admonition not to fall into careless traps about the relationship between concentration and economic welfare, Adams must admit that, in this market, concentration may confer some improvements in general economic welfare in the form of simpler passenger scheduling and single-line continuity on trips through hubs.

As for the effects of aggregate concentration on parallel market structures, Adams may have found a chink in the armor of the "new learning." A few studies seem to show that firms with multiple-market contacts among each other may be less aggressive competitors than firms in single markets of similar concentration. I would read this literature with caution, however, especially where it pertains to regulated industries, such as banks. If enough evidence is amassed to suggest that parallel integration or conglomerate firms provide the opportunity for collusive signalling, we might want to reevaluate our policy toward vertical or conglomerate mergers. We might also want to ask why Pickens and Roger Smith are so intent in reducing vertical integration in their respective industries.

I do not find Adams's reference to some of the "new new" learning as persuasive. Inventive theorists such as Salop, Scheffman, or Stiglitz can develop interesting models that demonstrate a variety of dangers. Some show that under the appropriate assumptions, prices increase with the degree of contestability of a market. Others conclude that prices may actually be lower with greater market concentration under various assumptions. These are interesting models, but they have not been subjected to empirical testing, nor has it been suggested that they might enjoy universal relevance.

## Decision Rules for Antitrust Enforcement

Even if he had shown us that concentration is increasing, that it is increasing because of mergers, and that such increases are a threat to general economic welfare, Adams has not given us a new decision rule to guide intervention. He admits that *Von's Grocery* was bad policy, but what is to replace it? Even the Herfindahl ratios in the current guidelines stand naked with little to support them. How would one write the rule for more aggressive intervention? And would the courts allow such a policy to stand?

Adams has given us little to chew upon. He may get his wish for a more activist antitrust policy in the next Administration, but it is far from clear just what form such a policy might assume or that economic welfare would be enhanced by it.