Department of Justice

ADDRESS

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When I agreed some months ago to the suggestion that my remarks be entitled "The Role of Antitrust Among National Goals," I thought that it would be useful and appropriate for me to discuss the role of antitrust, not in terms of its substantive content, but in terms of its proper scope, that is to say, to how much or how little of our economy the antitrust laws should be applied. That is indeed a domestic policy issue of pervasive importance, and I hope sometime to discuss it. However, the persistence and frequency of serious criticism of some important features of antitrust law have led me to conclude that I should utilize this forum for at least a partial reply. I shall devote my remarks to issues that go to the merits of a significant part of antitrust law itself. In particular, I wish to defend the concern of antitrust law with market structure and the relative size of business firms. This concern has most recently come under attack in an article appearing in the current issue of the Fortune magazine. Fortune's own summary of the article reads as follows:

> "Antitrust law, that great American sacred cow, was born with two heads. Its enforcement has followed two basically inconsistent policies. One is aimed against conspiracies between companies to fix prices; this has played a helpful part in protecting and enlivening competition.

"The other policy, now dominant, is preoccupied with the size of companies and their share of market. It frustrates the natural tendency of business to adjust to changes in technology, merchandising, finance, and corporate organization by growing bigger and by merging. The effect of recent court decisions is to shield specific competitors against the effects of competition. This second tendency sets up rigidities in business structure at a time when greater and greater flexibility is required by the accelerating pace of innovation.

"Fortune therefore presents this proposition for public consideration: Congress should amend the antitrust statutes to make it clear that the national policy is to foster competition by punishing restraints of trade, including conspiracies to fix prices, limit production, allocate markets, and suppress innovation; but that it is not the national policy to prefer any particular size, shape, or number of firms to any other size, shape, or number, and that mergers - horizontal, vertical, or conglomerate - are entirely legal unless they spring from a manifest attempt to restrain trade."

I will not go so far as to say that this analysis is nonsense, or that the proposal based upon it would be folly. I doubt that any one of us knows or could know enough about the facts to warrant conclusions so strong. However, I have no hesitancy in saying not only that no affirmative case has been made out for the proposition which Fortune suggests, but also that the best economic information and thinking available to us indicates that a strong anti-merger policy, at least insofar as horizontal type mergers are concerned, is almost certainly right.

Preliminarily, it is obvious that in terms of traditional economic analysis, preoccupation with market structure and relative size is plainly a pro-competitive policy, in no way inconsistent with antitrust concern about such restraints of trade as price-fixing conspiracies and other restrictive agreements. There is no doubt that some conceived and still conceive of the Sherman Act and Section 7 of the Clayton Act as weapons against bigness *per se*, as protectors of small business come what may, and as protectors of what were and are thought to be great social values. But so long as such sentiments are not allowed to override judgments based on competitive concepts, it seems to me that the presence of such diverse motives is totally irrelevant to the question whether the law, as economic policy, is silly or wise.

The principal purpose of anti-merger law is to forestall the creation of, or an increase in, market power. Its purpose is to preserve competitively structured markets insofar as natural forces will permit. I need only briefly restate the traditional reasons which are mustered in support of such a policy. If we can avoid the creation of undue market power, by and large we expect to achieve better market performance-better in terms of lower prices, higher quality products, and innovations both in product and technology. We also expect to minimize the misallocation of resources that results from monopoly or oligopoly pricing.

Consequently, if there is validity in this traditional economic reasoning, an anti-merger law clearly makes sense, even though based almost entirely, as in Philadelphia Bank, on structural considerations. For there is obviously a polar distance between our present law on horizontal mergers and a law, as proposed by Fortune, that would make mergers lawful "unless they spring from a manifest attempt to restrain trade."

Moreover, if there is validity in the traditional competitive analysis, a tough anti-merger law is not going to do any significant harm to the economy, even though, as I have argued repeatedly elsewhere, it must be based on general rules that are bound to stop some mergers that in fact are innocuous or even somewhat beneficial. For a tough rule on horizontal mergers does not stop the economy from achieving the principal objects with which the antitrust critics are concerned. If we exercise reasonable restraint in formulating rules on other kinds of mergers, a tough rule on horizontal mergers simply shuts off some merger alternatives, not all. It may indeed in some instances prevent the merger which would most readily accommodate efficiency gains; but there seems to be little doubt that in many cases superiority of the substantial horizontal merger in this respect will be at best marginal and there may be no superiority at all.

Moreover, even if the general body of merger prohibitions went well beyond its present scope, the avenue of internal growth remains open and this is the avenue by which many if not most firms have achieved whatever economies there are in large size. There seems to be little reason to believe that any significant economies will long go unrealized because this or that merger has been prohibited. Again, this is not to say that there will never be a case in which growth through merger is more advantageous to the economy than internal growth or expansion. There undoubtedly will be some such cases, but if we are right in being concerned about undue concentration in markets it is more than a fair guess that the gains from a strong anti-merger policy will far outweigh the losses.

Let me sum up at this point. The economic purpose of an anti-merger policy is precisely the same as the purpose behind the antitrust prohibitions on such anti-competitive agreements as price-fixing. The purpose is to prevent, wherever natural economic forces do not compel it, the development of the kind of concentrated market structure that produces the same adverse effects on performance as those produced by price-fixing and similar agreements.

I now turn to the question whether our traditional analysis, which looks with disfavor upon concentrated market structures, is no longer valid - or at least no longer sufficiently valid to make a strong anti-merger policy worthwhile. Let me first make a little clearer what I mean by traditional economic analysis. I do not mean to refer to the earlier theoretical analysis ~~position~~ which implied that an industry with but a small number of sellers could <u>never</u> be workably competitive or could <u>never</u> match the performance standards of the large numbers industry. This is clearly not so, and I doubt that any one has seriously believed it for a long time. There is no doubt that economies of scale can and do produce comparatively concentrated industries which because of economies perform much better than artifically pulverized industries could ever do. There is no doubt that fairly vigorous competition takes place in some concentrated markets where there is considerable room for product variation and product improvement. But as I understand it, what our traditional analysis holds is that as a general rule undue concentration does tend to produce inferior market performance in the form of higher prices and the like; and our traditional belief has been that economies of scale are not sufficiently severe and widespread to render an anti-concentration policy a harmful or pointless gesture.

These are the propositions which the editors of Fortune and others appear to dispute. While many assertions are made, the most important seem to be these:

1. that concentration in the production of a particular product is of little or no significance because of inter-product competition;

2. that traditional analysis "tends to ignore the element around which competition in fact increasingly centers - managerial brains"; and

3. that in creating larger size companies mergers usually produce greater efficiencies, most importantly in research and development.

As for inter-product competition, it no doubt does impose ceilings on the power of the manufacturers of a particular product to raise prices. If the products are close enough substitutes and the costs of production are comparable, the ceiling may be as tight or nearly as tight as would be imposed by additional sellers of precisely the same product. But what conclusions can be drawn from this? There is of course the well-recognized fact that anti-merger law and anti-monopoly law will often involve some rather difficult problems of market definition, and that these problems should be approached in a rational way. But it seems to me preposterous to suggest that we should cease to be concerned about concentration in the production of a particular product simply because the existence of other products narrows the range of price exploitation that otherwise would obtain. Though, to quote Fortune, "beer competes with . . . candy," a monopoly or an oligopoly in the beer industry would still have power to raise price well above competitive levels before any significant number of customers would decide to quench their thirst with Hershey bars. And the fact that aluminum wire competes with copper wire and that many copper and aluminum products compete with steel products simply does not mean that concentration in any one of these industries has no impact on the price of its products or on other aspects of competitive performance. Therefore, it does not mean that antitrust concern with concentration has ~~lots~~ lost its raison d'etre. Indeed, it would not be entirely facetious for me to suggest that those who praise the virtues of inter-product competition do not really take themselves all that seriously. Even the editors of Fortune continue to praise the virtue of making price-fixing agreements unlawful. Yet price-fixing agreements among producers of the same product would be a matter of no consequence if producers did not have the power to raise prices because of inter-product competition.

That significant increases in concentration in the production of particular products will normally lead to less competition is strongly supported by empirical evidence. Professor Caves has pointed out: "We would expect from economic theory that high concentration . . . would tend to produce high profit rates . . . by giving firms a chance to garner some of the potential monopoly profits . . .". "This prediction," adds Professor Caves, "turn[s] out to be accurate." /a/ A study by Professor Bain on the relation of profit rates to industry concentration in 40 industries defined more or less along traditional product lines shows a significant correlation between higher than average profits and high concentration. /b/ A more recent study shows that among industries with medium entry barriers (again defined along traditional product lines), the industry that is more highly concentrated shows higher profits. /c/ And a recent thorough study of the banking industry shows that concentration of banks in a local market goes hand in hand with higher interest rates - a direct correlation between concentration and a higher price for the product sold, in this case, money. /d/ Were it correct, as many assert, that increased concentration does not lead to diminished competition, either because of inter-product competition or for any other reason, it remains for them to explain why it is that even among industries with stationary demand and constant output, those that are highly concentrated set prices significantly higher than costs plus normal profit. To repeat, what evidence we have tends to support the commonplace conclusion that significantly increased concentration means diminished competition and the extraction of monopoly profits from the consumer.

Let me now turn to the contention that traditional analysis "tends to ignore the element around which competition in fact increasingly centers - managerial brains." I can only say that the contention if true (and I don't believe it is) seems to me to be largely irrelevant to the appropriateness of anti-merger policy unless management is so scarce a resource that it can only be utilized to full advantage by permitting levels of concentration well beyond what other economies of scale would dictate. I know of no evidence that management is that scarce a resource. In fact, some studies which I shall shortly allude to suggest, although of course they do not prove, that no such scarcity exists. But even if we suppose that first-class management is so scarce that we should encourage a greater concentration of business assets than we now have, it seems clear that valid competitive considerations would still dictate directing such further concentration toward conglomerate forms rather than permitting underutilized management to fulfill itself by substantial horizontal mergers.

Rather than pursuing this particular issue further at this point, I should like to turn now to the question of whether economies of scale generally are so significant that an abandonment or substantial curtailment of anti-merger policy is in order. Let me summarize some of the evidence which is available for what light it sheds on the questions before us. One statistical study, which was carried out some years ago, concerned the relationship between corporate size and profit rate among manufacturing corporations. 1/ The primary finding of this study is that average profit rates increased as firm size grew to approximately the $5 million total asset mark, but that once this level had been reached profit rates were constant or even tended slightly downward. In short, among corporations with assets exceeding $5 million, profit rates are not crucially dependent on firm size. If it were true that better managers tended to concentrate in larger firms, or that economies of scale were continuous, then profits should increase with size throughout the whole of the distribution. The statistics, however, simply do not bear this out.

There have been a number of other studies concerned with the question of economies of scale among manufacturing industries. Let me review the findings of one of the leading studies, findings characteristic of the other studies that have been made. Professor Bain set out to measure statistically the extent of scale economies within 20 of the leading manufacturing industries. By this, I mean he attempted to measure the minimum size of plant which was sufficiently large to realize all of the engineering and technical savings which are associated with mass production. Having done this, he examined whether concentration was greater or less than appeared to be required for optimal efficiency. His conclusion was this:

> "Referring to the first four firms in each of our industries, it appears that concentration by the large firms is in every case but one greater than required by single-plant economies, and in more than half of the cases very substantially greater." 2 /

This finding indicates that an active merger policy intended to limit increases in market concentration is unlikely to result in lower efficiency, that an anti-merger policy and efficiency are not in conflict.

Bain's study deals with economies of scale within fixed technologies, and the critics of antitrust merger policy quite properly suggest that we need also to concern outselves with the relationships between competition and technological innovations. By no means the first to do so, Fortune refers admiringly to the writings of Professor Schumpeter, who advanced the view that some combination of large firm size and monopoly is required if firms are to invest substantial funds for innovation. While Schumpeter's writings are strong and lucid, and there is a good deal of implicit appeal to the arguments which he makes, we still need to ask ourselves whether this approach has empirical as well as theoretical justification, and if so just what the limits of the argument are. I hope you will excuse me if I quote here from my favorite authors, Kaysen and Turner, who had this to say some seven years ago:

> "*** it is clear *** that the atomistic firm of the competitive swarm might have neither incentive nor ability to invest in research. ***
>
> " But neither this argument, nor the probably correct conclusions on the existence of some economies of scale in research and development activities, is helpful in settling our problem. Since we are talking

> "only in terms of business units at least as large as those necessary for efficient production and distribution, the problems of competitive atomism are irrelevant. In crude terms, our problem is to distinguish between the ability of the $500 million to $5 billion firms to contribute to a high rate of progress, and that of the $50 million to $500 million firms. Firms which are big enough to be technically and managerially efficient in most of the oligopolistic industries are big enough to fall outside the area of obvious disability in research and development; whether they are as efficient as their bigger brothers is not shown by presently available evidence." 3/

We have since had several studies designed to test the validity and dimensions of the proposition that both the amount of research and the efficiency of research is correlated with size of firm. I believe it is accurate to say, on the basis of these studies, that once we get a firm large enough to do significant research at all there are no evident economies of scale, either in research per size of firm or in research productivity for any given amount spent. It is indeed true that larger firms are much more likely to have research laboratories than small firms. One study indicated that only 4% of firms employing less than 500 workers had research establishments, while nearly 80% of firms having more than 5,000 employees had research facilities. Nevertheless, among firms which do have research organizations, small firms tend to spend proportionately as much as their larger counterparts, and in some instances they spend more.[4]

Another most interesting study showed that between 1899 and 1937, the industries in which labor productivity increased most sharply were those characterized by declining concentration. Not only was this true, but industries of low concentration showed better performance than those with high concentration.[5] Since we frequently presume that research and innovation are directed towards lowering costs, leading thereby to higher levels of output per manhour, those studies suggest that increasing concentration has not led to more innovation but rather that the opposite may have been the case, and that "it is the competition of new rivals within an industry, not the competition of new industries, that is associated with rapid technological progress."[6]

The last question which deserves comment is whether large firms and large research laboratories are necessary for efficient research activity. The argument here is that even if smaller firms spend proportionately as much or more than their large rivals on research and development, smaller laboratories are inherently less efficient than their larger counterparts and turn out relatively less in the way of new innovations. There is no overwhelming evidence on the point because of the difficulties involved in measuring output of research laboratories. And here again, there are undoubtedly situations in which research of any kind requires expensive equipment and facilities which firms below some minimum size could not afford. However, two studies suggest that in general there is little reason to suppose any persistent economies in large size. Indeed, they suggest the contrary.

In a recent study reported in the American Economic Review, Professor F. M. Scherer of Princeton University attempted to measure the extent of innovation within various manufacturing industries by means of the number of patents granted to major firms within these industries. [7/] Let me quote to you Professor Scherer's leading conclusions:

> "1. Inventive output (as measured by patents granted) increases with firm sales, but generally at a less than proportionate rate; and
>
> "2. Inventive output does not appear to be systematically related to variations in market power, prior profit, liquidity or degree of production line diversification." [8/]

And Professor Scherer concludes his study with the following reflections:

> "These findings, among other things, raise doubts whether the big monopolistic conglomerate corporation is as efficient an engine of technological change as disciples

of Schumpeter have supposed it to be. Perhaps a bevy of fact-mechanics can still rescue the Schumpeterian engine from disgrace, but at present the outlook seems pessimistic." 9 /

The second of the studies I refer to involved efficiency in research in the pharmaceutical industry. The author concluded as follows:

"Our analysis . . . provides some evidence that in the pharmaceutical industry, there are substantial diseconomies of scale in R&D; and that these disadvantages are encountered even by moderately sized firms. One implication of this finding is that an actively enforced pro-competitive policy in this sector is not likely to dampen the rate of technical change and may well stimulate it. 10/

Where are we then? I quote Professor Stigler:

"***For the time we may conclude that there is no prima facie contradiction of the classical view of the positive relationship between competition and progress or, indeed, as much support for the contrary view as the devil usually provides for clever heresy." 11 /

The proposition that the factual premise for an anti-merger policy has disappeared rests on little more than sheer assertion; the weight of the evidence we have indicates that there is about as much justification today for an anti-merger policy directed against substantial horizontal mergers as there ever has been. In this connection I cannot but point out again that anti-merger law, even if stretched well beyond its present bounds, leaves open most alternatives whereby any advantages of large size may be legitimately obtained. All in all, the costs of being too lenient on mergers still appear to be higher than the costs of being too strict.

Footnotes

1a/ Richard Caves, American Industry: Structure, Conduct, Performance, (1964) p. 104.

1b/ Joe S. Bain, "Relation of Profit Rate to Industry Concentration: American Manufacturing, 1936-1940," in the Quarterly Journal of Economics, Vol. LXV (August, 1951), pp. 293-324.

1c/ Joe S. Bain, Barriers to New Competition, ch. 7, pp. 182-204.

1d/ Franklin R. Edwards, "The Banking Competition Controversy," The National Banking Review, Vol. 3, No. 1 (September, 1965) pp.1-34.

1/ Sidney S. Alexander, "The Effect of Size of Manufacturing Corporation on the Distribution of the Rate of Return," Review of Economics and Statistics, Vol. XXXI, No. 3, August 1949, pp. 229-235.

2/ Joe S. Bain, Barriers to New Competition, (1956) p. 111.

3/ Carl Kaysen and Donald F. Turner, Antitrust Policy, (1959) pp. 84-85.

4/ Caves, op. cit., p. 99.

5/ George J. Stigler, "Industrial Organization and Economic Progress," as reprinted in Harvey J. Levin, ed., Business Organization and Public Policy, pp. 131-133.

6/ Ibid., p. 133.

7/ F.M. Scherer, "Firm Size and Patented Inventions," in the American Economic Review, Vol. LV, No. 5, Part I, December 1965, pp. 1097-1125.

8/ Ibid., p. 1121.

9/ Ibid., p. 1122.

10/ William S. Comanor, "Research and Technical Change in the Pharmaceutical Industry," in the Review of Economics and Statistics, Vol. XLVII, No. 2, May 1965, p. 190.

11/ Stigler, op. cit., p. 133.