THE ANTITRUST ECONOMICS OF JOINT VENTURES

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Most writers on antitrust join in Phillip Areeda's observation that " 'Joint venture' is an expansive notion without definite meaning or antitrust consequence." 1 By that they mean that analysis of joint ventures can be carried out by using the same concepts and analytic steps that antitrust uses to analyze other commercial arrangements. The actual application of those tools, however, to joint venture arrangements presents particularly difficult problems of interpretation and thus it is no surprise that joint ventures are especially responsive to broader changes in antitrust law.

In the last period of antitrust expansion, approximately 1950 to 1970, the antitrust treatment of joint ventures was affected by the doctrine of potential competition. It had long been clear that a joint venture between two firms already in the same product market, where the joint venture related to that product market, and where the joint venture restrained the competition in which the firms would engage outside the joint venture, was a per se restraint of trade in violation of Section 1. 2 This doctrine left many joint ventures, particularly those relating to products or activities outside the scope of present horizontal market competition, un-
affected by the antitrust laws. But if restraint of trade under Section 1 were to be equated with restraint of potential competition, and potential competition were to be equated with competition that might, in the future occur, then any joint venture would raise significant antitrust problems. That possibility was, of course, strongly suggested by the government’s complaint in *United States v. Penn-Olin Chemical Co.*, involving a joint venture to produce sodium chlorate in the southeastern United States between one firm that did not produce sodium chlorate at all and another that did not produce it in the section of the country where the plant was to be located. Although the government finally lost the case, the highly fact-specific inquiry required by the Court and the amorphous reach of the potential competition doctrine left many possible joint ventures under an antitrust cloud.

The potential competition doctrine subsequently foundered upon the discovery that if its logic was accepted then one had to consider not only the restraint on potential competition between the parties involved in the merger or other transaction being evaluated, but one also had to consider the potential competition of all other firms similarly situated. Once that was done, it was hard to see how the loss of one firm from a universe of many could make any difference. To take the example of a case that represents the high tide of the potential competition doctrine, *Kennebec Copper Corp. v. FTC*, if Kennecott was barred from acquiring Peabody Coal because Kennecott, as a firm with comparative expertise in extracting minerals from the ground, was a potential entrant in the coal market, then it was necessary also to consider every other firm with the same kind of expertise—which turns out to be a great many firms, the metal mining companies, the coal mining companies, the oil companies, and so on. Thus the very logic that argued for the application of potential competition argued for a conclusion that potential competition could not be adversely affected by any conceivable transaction. In the wake of the doctrine’s collapse, United States Steel has acquired Marathon Oil, General Motors has acquired Electronic Data Systems, International Business Machines has acquired Intel and Rolm, Du Pont

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5 The Merger Guidelines state that the Department of Justice will not challenge a merger on grounds of injury to potential competition if the advantage of the potential entrant is an advantage “also possessed by three or more other firms.” U.S. DEP’T OF JUSTICE MERGER GUIDELINES (1984), *reprinted in 2 TRADE REG. REP. (CCH) ¶ 4494.103*. In fact, any advantage possessed by one firm not presently in the market is almost always going to be possessed by many more firms than three.

6 467 F.2d 67 (10th Cir.), *cert. denied*, 416 U.S. 909 (1972).
has acquired Conoco, and (to close the circle), Standard Oil Company of Ohio has acquired Kennecott.

In the present period of antitrust contraction since 1975, joint ventures are of interest for a different reason. They are the area where the present contraction in antitrust threatens to go beyond the judicial treatment of conglomerate and vertical relationships, and confront long established antitrust slogans in their core domain—horizontal competition between large firms in concentrated markets. The General Motors-Toyota joint venture illustrates the point. The National Cooperative Research Act of 1984\(^7\) is unlikely to have much practical attraction to businesses because of the limited scope of the ventures it authorizes. But it does put Congress squarely on record in support of the proposition that present international competitive conditions make the application of a per se rule to research joint venture undesirable, even to a research joint venture among firms of substantial size and market share in the same market, and even if a necessary implication of the joint venture is that the member firms will not compete against each other by pursuing the kind of research that is within the scope of the joint venture. Such direct attacks on the domain of the per se rule in the context of horizontal competition would have been unthinkable barely a decade ago.

I will address the rest of my remarks to the question of what economics has to say about joint ventures. Since it is a hallmark of the current antitrust style that economics plays an important role in the determination of antitrust rules, the approach of economics to joint venture issues might tell us much about the future course of the law in this area. Unfortunately for those of us who like to have clear guidance, or even any guidance at all, economics has very little to say about the subject. If one excludes the applied, antitrust-industrial organization literature, which is almost entirely speculative in content, there is practically none at all.\(^8\) Economists have made no systematic study of joint ventures as an institutional phenomenon.

That does not mean, however, that an economist would not have much to say about joint ventures, particularly if prompted by appropriate incentives. In the next section of this talk I will proceed to summarize

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\(^8\) Ordover & Willig, Antitrust for High-Technology Industries: Assessing Research Joint Ventures and Mergers, 28 J. of LAW & ECON. 311 (1985), is an abstract analysis. Note, Impacts of Domestic Joint Ventures on Industrial Rates of Return: A Pooled Cross-Section Analysis, 1964–65, 63 REV. OF ECON. & STAT. 293 (1981), is an effort to study the impact of joint ventures on profitability, in the tradition of the industrial concentration literature. The methodological problems attending this effort are so substantial that the piece cannot be regarded as more than an exploratory study.
what "an economist" would say about joint ventures. The "economist" who is speaking is an unnamed and collective amalgam of the profession, a characteristic that necessarily makes him considerably more confused than many single examples of his calling.

The first problem for an economist would be defining what a joint venture is. Economics itself has a highly abstract and limited set of institutional types: contracts, the firm, the cartel, and the government. An economist would view a joint venture as an arrangement lying on a continuum somewhere between a firm and a contract, and as closely related to various other forms of long-term contractual relationships. An economist would view what is for the lawyer the distinctive feature of a joint venture—the existence of a governance structure separate from that of the contracting parties—as a difference of degree, not of kind. He would point out that long-term contracts, too, must be constantly administered and adjusted, that the process of interaction and negotiation involved in a long-term contractual relationship is also a governance structure, and that the highly articulated and complex provisions for arbitration that one sees in some long-term contracts are much like a formal governance structure. An economist would not view the problem of analyzing the economic effects of a joint venture as much different than analyzing the effects of any long-term commercial relationship.

An economist also views a joint venture as lying on a continuum between a cartel or "naked price fix" and a firm. A joint venture is a relationship between firms that involves cooperation on more than the issue of the terms of the competition between them, but involves less integration than if the participating firms were a single firm. From this the economist would be willing to conclude that a joint venture (1) involves less restraint on competition than a merger and (2) offers greater promise of efficiency gains than a naked price fix. Whether, on the whole, any particular joint venture is likely to contribute to or undermine efficiency, is a question that would turn on the particular terms of the joint venture and the technological and market setting in which it arises.

In order to answer this question, our economist would turn to an analysis of the negative and the positive effects of the joint venture on efficiency, and then attempt to net the positive and the negative effects to reach a conclusion as to its desirability. Presumably this is the very inquiry dictated by the rule of reason, which governs the legality of most, if not all, joint ventures.

The first step for the economist would be to determine whether the firms participating in the joint venture have a position in any market such that they are able, when acting in concert, to charge more than a
competitive price. A full analysis of this question requires an evaluation of the ease with which firms already in those markets can expand their production as well as of the ease with which firms not presently in the market can enter it. However, concentration measures have traditionally been used as a proxy for the relevant variables. If, for instance, our hypothetical economist believed (or was asked to assume) that the Herfindahl-Hirschman Index level of 1000, used in the Department of Justice Merger Guidelines, is in fact a level below which no competitive problems are likely to arise, then the observation that the HHI in all markets in which the joint venturers participate would either be unaffected or would be below 1000 after a merger of all participants would lead him to conclude that their participation together in a joint venture would be unlikely to affect competition.

At this point the analysis of the economist and the lawyer diverge, for cases have held restraints relating to price and market division among joint venturers per se violations of the antitrust laws, without regard to the combined market shares of the joint venturers. We will return to the role of these restraints in joint ventures shortly.

If the combination of the joint venturers by merger would create a level of concentration in a market that our economist would view with concern, he would then want to evaluate the effects of the particular joint venture on competition among the parties. His concerns would be two. First, that the joint venture, either explicitly or implicitly, would cause the parties to compete less vigorously among themselves because that competition would now harm their joint venture interest. And sec-

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9 The full formal analysis required is set out in Landes & Posner, Market Power in Antitrust Cases, 94 Harv. L. Rev. 937 (1981). Research and development joint ventures are particularly difficult to analyze because the theory suggests that the appropriate market to analyze is not the present product market but the market for the innovation in the future. This is the approach adopted by Ordover & Willig, supra note 8, but impossibly speculative to apply in practice (or, if applied later to an earlier transaction, impossibly blinded by hindsight). In my view, this was the problem lying behind SCM Corp. v. Xerox Corp., 645 F.2d 1195 (2d Cir. 1981), cert. denied, 455 U.S. 1016 (1982) (holding that Xerox’s acquisition of patent rights from Battelle Memorial Institute did not violate § 7), but that the court got the right answer for the wrong reason. See Kitch, Patents: Monopolies or Property Rights?, in Research in Law and Economics (forthcoming).

10 As a matter of theory it is not clear that the “cut off”—necessarily a rough number—should be the same for mergers and joint ventures. Joint ventures have less negative effect on competition than do mergers, because the members remain independent, but they may also offer smaller efficiency gains due to the costs of coordinating and managing a separate joint venture. I would argue that for all joint ventures except those relating to the current marketing and sale of products, the “cut off” should be higher because the threat to competition is less. These computations would be greatly complicated if there is a pattern of overlapping joint ventures in the industry.

ond, that the existence of the joint venture would facilitate collusion among the participants.

As a legal matter, it is a reasonable implication from the existence of a joint venture that the parties owe a fiduciary duty to each other not to engage in competition that would harm the venture. A lawyer may well be advised to address this issue explicitly in the joint venture agreement, and provide that nothing about the joint venture implies any such duty. But beyond legal duties, an economist would want to analyze the relationship between the joint venture and the rest of the participant's businesses. If the joint venture is small relative to the other business of the participants, so they have more to lose in that business than they do in the joint venture, no incentive to refrain from competition exists. But if the joint venture is large, and the other business small, the reverse implication arises.

Even if the joint venture is small, an economist would be concerned that the existence of the joint venture would facilitate the communication of information between the participants in a manner that would facilitate implicit or explicit collusion. At this point, the response of economists would vary greatly, for there is no agreed upon theory as to the conditions which do or do not facilitate collusion, or upon the empirical significance of the variables any theory considers important. At the extremes, some economists believe that the incentives for businessmen to engage in anticompetitive collusion is so strong that they should not be permitted to stay overnight in hotels, while others believe that collusion is so difficult and costly for the firms that engage in it that the phenomenon is unlikely to appear. Over the last twenty years, the profession seems to have increased its appreciation of the costs and difficulties of effective collusion, and to be less likely to infer its existence from structural features of the industry alone. For instance, Morris Adelman, in his ambitious 1972 study of the oil industry, was confident of the anticompetitive effects of the massive and overlapping horizontal production joint ventures in the Middle East.\(^\text{12}\) I doubt that many economists would today venture so firm a conclusion. There would be agreement that the particular area of the joint venture is related to the possibility that it can facilitate collusion. Most suspect would be joint ventures related to the current marketing and pricing of the members' product.\(^\text{13}\) Least suspect, in order,

\(^{12}\)M. Adelman, The World Petroleum Market 82–89 (1972). Adelman concluded that, "It would therefore appear that the overlapping of joint ventures permitted the limitation of Persian Gulf output." Id. at 88. Subsequent events have been very unkind to the analysis of the book on this and many other issues.

\(^{13}\)Probably the most suspect would be an exclusive joint marketing agency, as in Appalachian Coals, Inc. v. United States, 288 U.S. 344 (1933). However, the market share
would be joint ventures related to research and development of future products, promotion of the product type, or a phase of the production process.

Our economist would then turn to the benefits side. He would examine the joint venture to see if it is structured to overcome so-called imperfections in the marketplace. To this task he would bring his usual tool kit: (1) externalities, (2) economy of scale, and (3) transactional efficiencies.

*Externalities:* An externality arises when an investment confers benefits that cannot be captured by the firm making the investment. For instance, it is widely agreed that an innovator cannot capture all of the social benefits that flow from an innovation, even if some aspects of the innovation are patentable. A joint venture among the major prospective users of the innovation can be arranged so that they contribute to the cost of the innovation in proportion to their likely benefit. Or another example: it is widely agreed that the portion of advertising expenditures which disseminates information about general product characteristics confers benefits on all sellers of the product type. For instance, advertising by an automobile firm about its car can provide prospective purchasers with information about what quality characteristics should be considered in shopping for cars. A joint venture among the sellers of the product type—for instance a venture among the sellers of citrus fruit or milk to explain the virtues of their product—can be set up so that those who benefit from such promotion bear the costs of the promotion.

*Economy of Scale:* The particular activity may require an efficient scale different than the scale of the firms which join the joint venture. For instance, a relatively small, locally owned grocery store may have advantages in servicing a neighborhood market, but may be too small to support a buying and warehousing operation at an efficient scale. The contemporary economist would be open to seeing economies of scale in areas other than production. For instance, a small firm may be unable to support research at an efficient scale. Or, even more removed from operational factors, an economist would view issues of risk as related to economy of scale. Is the project too large for a single firm not because the firm could not finance or manage it, but because it requires the firm to assume too much project-specific risk in relation to its other investments? Production joint ventures in the oil industry, for instance, could be explained on the ground of economy of scale in this sense.

Analysis in the case is correct, and the joint venture did not present competitive problems because the combination of the participants, even if merged, would not have presented an anticompetitive threat. See H. Hovenkamp, supra note 2, at 113.
**Transactional Efficiencies:** Under the influence of Ronald Coase and Oliver Williamson,\(^\text{14}\) the issue of efficient transactional forms increasingly attract the attention of economists. Conceptually, the idea is closely related to the older ideas of externalities and economy of scale, for if there were simple contractual alternatives to the joint venture that would present less competitive threat with equal efficiencies, then an economist would be inclined to prefer them. For instance, if small grocery stores can simply obtain the advantages of large-scale buying and warehousing by purchasing from an independent wholesaler, then a joint venture arrangement is not necessary to obtain economy of scale at the buying and warehousing level.

There is no objective way to measure the relative efficiency of transaction forms, but an economist will be very influenced by the presence or absence of particular institutional forms in the industry. For instance, if, over time, grocery stores that are vertically integrated with the buying and warehousing function appear to grow at the expense of those which are not, the economist will be likely to conclude that there are efficiency advantages to the integrated form over the market purchase form. If research and development is difficult to purchase on contract because it is difficult to predict or measure costs or to specify the output to be purchased, then some form of partial or complete integration may be a more efficient transactional form for the purchase of the innovation than a purchase contract.

Some efficient arrangements may not have been used in the United States because of concerns about antitrust liability. An economist would be influenced to conclude that a particular arrangement is efficient by a demonstration that it had been used in similar economies such as Japan or Western Europe and succeeded.

One incentive for the creation of joint ventures can be that the participating firms possess complementary assets. For instance, one firm may know how to make the product, the other firm may know how to market it. Or one firm may be strong in one technology, the second in another, but the contemplated product to be developed will require technological solutions in both areas. The product requires specialized new investments by each and the return will be a joint product of the efforts of each. A sale of the relevant asset one to the other may be

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difficult because valuations are unknown or the continuing cooperation of each organization is required, or the specialized assets cannot be separated from the other activities of the firms. For instance, to take the example of the recently announced Du Pont-Phillips joint venture in compact disks, Du Pont may be unable to sell its coatings technology and know-how to Phillips because it uses that technology in many other product areas of no interest to Phillips. In this situation, a joint venture, with its continuing requirement of cooperation, with returns based on results, and its ability to adapt as the project develops, may be the most transactionally efficient way to bring the complementary assets together.

Finally, where an economist concludes that the joint venture is a transactionally efficient solution to market imperfections, he may be willing to view provisions of the joint venture that would otherwise be viewed as anticompetitive as necessary to create the incentives for the creation of the joint venture. Thus the price fixing and territorial division provisions of joint venture arrangements, which the courts have viewed as clearly anticompetitive, may be seen by the economist as an integral part of the joint venture structure, or to use the common law term, as ancillary to the joint venture. For instance, if a group of small, regional mattress manufacturers enter into a joint venture for the national promotion of a mattress brand (perhaps because the most efficient scale for advertising is national), they need some device to allocate the benefits of the venture. One way to do that is to give the participants the exclusive right to exploit whatever benefits the venture produces in their own territories.

CONCLUSION

What can a lawyer conclude from this brief exploration of the economics of joint ventures? Assuming that the particular transaction will be governed by the rule of reason, and that the rule of reason inquiry is the same as the social welfare inquiry of applied industrial organization, the following conclusions emerge. First, joint ventures are unlikely to harm competition if (1) their participants have insufficient market share to influence competition or (2) the area of the joint venture is removed from the current sale and marketing of the products in which the members compete. Second, joint ventures are more likely to have positive efficiency gains to the extent that they overcome identifiable externalities, achieve economies of scale, or overcome difficulties present in the transactional alternatives. Joint ventures related to research and development of future products and promotion related to a type of product are most favored by this analysis, while joint ventures that relate to (or even worse, constrain) the marketing and sale of current products are most suspect.
A lawyer who is counseling a client in connection with the formation of a joint venture would be well advised to guide the transaction in directions which make the efficiency features of the arrangement prominent, and to build in features that protect against the possibility that it can be used as a device to facilitate collusion.

15 If the resources are available, this should involve more than finding out why the businessmen-clients think the transaction is a good idea and reciting their reasons in the documents. The efficiency features should be structured into the transaction in a way that easily invites application of the efficiency concepts known to the recently trained lawyers and economists who play such an important role in the enforcement agencies.
APPLYING JOINT VENTURE ANTITRUST PRINCIPLES—A PRACTICAL GUIDE