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CONTENTS

AN ECONOMIC ANALYSIS OF VERTICAL MERGER ENFORCEMENT POLICY

Alan A. Fisher and Richard Sciacca

TABLE OF CONTENTS

Research in Law and Economics, volume 6, pages 1–133.

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LIST OF TABLES

Enforcement of vertical mergers has been excessively stringent under the Celler-Kefauver Amendment to the Clayton Act until relatively recently; the Justice Department, however, recently has indicated that it intends to prosecute vertical mergers only under rare circumstances. We provide a coherent analysis of the efficiency and anticompetitive effects of vertical mergers, focusing on necessary and sufficient conditions for each, the probability of their occurrence, and their probable magnitudes. We integrate the most recent economic analysis (both theoretical and empirical) into the legal and judicial framework, explaining the legal criteria for the social desirability of vertical mergers, the constraints of enforcement through the courts, and the direct and indirect (incentive and uncertainty) costs of alternative policy approaches to vertical mergers. Our principal conclusion is that an optimal enforcement policy would not attempt to administer justice, or decide the net desirability of a merger, on a case-by-case basis. Rather, administration of relatively simple and objective criteria for the legality of vertical mergers would maximize social welfare. We propose Guidelines for vertical mergers and explain their superiority to both the 1982 and 1968 Justice Department Guidelines.

I. INTRODUCTION

Of all areas in antitrust, the differences between the legal interpretation and economic analysis seem greatest with respect to vertical relationships (both mergers and vertical restraints). The economic effects of vertical mergers and other types of vertical contractual relationships are qualitatively similar, with any differences occurring only in the details. Economic analysis therefore traditionally has treated vertical mergers under the broader category of vertical integration.

In Section II, we comment briefly on the legislative and enforcement history of vertical mergers under the Celler-Kefauver Amendment. Con-

gress wanted to prevent mergers where anticompetitive effects were reasonably likely—and not mergers where the most likely result would be efficiencies and where anticompetitive effects were speculative and uncertain. Congress did not distinguish among horizontal, vertical, and conglomerate mergers; the enforcement agencies and courts must determine when each type of merger is likely to have undesirable effects.

Largely because of an inadequately developed economic analysis, the courts have been overly strict in enforcing vertical mergers. Partly because there are relatively few vertical mergers and partly because very few have been challenged in recent years, the only thorough Supreme Court analysis of vertical mergers dates to 1962, when the intellectual atmosphere for vertical mergers was much more hostile than it is now. In part relying on that precedent, courts have used faulty economic analysis for vertical mergers, especially with respect to: (a) confusion between harm to competition and harm to specific competitors; (b) viewing efficiencies from vertical mergers as harmful rather than desirable, even when competitors could themselves integrate and achieve the same efficiencies; (c) focusing on foreclosure, which is not an independent source of monopoly power; (d) misunderstanding the meaning of "incipiency"; and (e) failing to realize that an increase in self-dealing typically is required to achieve efficiencies from vertical integration and should not be viewed only as harmful.

Turning to the economic analysis of vertical integration [Section III], we find that vertical integration can yield cost savings by facilitating the flow of information within a firm; minimizing negotiation, sales, and distribution costs; eliminating distortions from market failure; avoiding pricing distortions due to monopoly power in vertically related markets; allowing the exploitation of technological complementarities; and helping assure an adequate supply of optimally designed inputs. Vertical mergers also can have anticompetitive effects—by increasing overall monopoly power, raising entry barriers, or facilitating oligopolistic collusion. Table 2 summarizes the necessary and sufficient market structure conditions for vertical mergers to have anticompetitive effects.

Some motives for vertical integration, however, are not primarily proefficient or anticompetitive. These miscellaneous categories include evading regulation, minimizing overall tax burden, and enhancing the ability to practice price discrimination.

Although economic analysis yields 11 cases where vertical mergers can have anticompetitive or other socially harmful effects, not all of these possibilities are of equal concern. Five of the cases either are redundant (entirely covered by more general cases) or would only have anticompetitive effects given a series of activities that in their entirety would violate other antitrust laws. Moreover, the identical market structure con-

ditions typically are consistent with proefficient as well as anticompetitive effects. The economic analysis therefore implies a trade-off, rather than blanket condemnation, for the cases where anticompetitive effects are possible.

In Section IV, we evaluate the legal interpretation of vertical mergers according to economic theory, focusing on the concepts of foreclosure and incipiency. We find that foreclosure can have anticompetitive effects only in the market situations identified under the economic analysis and summarized in Table 2. In other cases, foreclosure either would not be a profit-maximizing strategy or would not work because of market alternatives available to competitors of any firm attempting to use such conduct. Foreclosure therefore does not provide any justification for antitrust concern, aside from those situations identified by the economic analysis as presenting possible competitive problems. With respect to incipiency, Congress focused concern only on trends with a reasonable probability of anticompetitive effects. Most trends to vertical merger seem to reflect the attainment of efficiencies; moreover, the cases where incipiency has been argued have been precisely the cases where anticompetitive effects have been least likely. Incipiency therefore is best handled by conservatism in selecting guideline levels rather than through a separate provision.

We turn in Section V to a survey of empirical evidence on the effects of vertical mergers. The gloomy finding is that we know very little. Data suggest that roughly 8 to 15 percent of all mergers since 1950 have been vertical (slightly fewer since 1966 than in prior years). However, close examination of the data shows shockingly large discrepancies between classification of mergers by type (horizontal, vertical, or conglomerate) at the time of acquisition compared to classification of allegations in litigation for mergers subsequently challenged under the Celler-Kefauver Amendment. Similarly, a close examination shows that vertical relationships were so exaggerated in some merger cases that it stretches reality to consider the acquisitions vertical, despite the arguments of complaint counsel or findings of the courts. This exaggeration translates into a heavy concentration of vertical foreclosure percentages of minimal proportions. Given these peculiarities, one must be very suspicious of basic data on vertical mergers.

The broader questions, however, are: what has been the contribution of vertical mergers to trends in vertical integration, and has vertical integration had primarily procompetitive or anticompetitive consequences? Empirical evidence is sketchy. Nearly all existing studies are confined to single industries, where the results may not generalize as one would wish for evidence to form the basis of policy. Most studies have a further disadvantage in a weak link between theory and empirical testing. Most

studies do not test for the separate impacts of efficiency, market-power, and discrimination considerations—that is, they test a single hypothesis in such a way that alternative hypotheses are equally consistent with the results. Although we do not have any reliable guide to the overall or average extent of efficiency or anticompetitive effects of vertical integration (through merger or otherwise), the FTC Line of Business data set offers the possibility of sophisticated testing of hypotheses with data far superior to any available in the past. Research projects under way may provide better answers than any available so far.

Section VI brings these various threads of the analysis together to evaluate alternative policies for vertical merger enforcement. An inadequate enforcement policy can err in any of three ways. We define Type 1 error as stopping beneficial mergers, Type 2 error as permitting undesirable mergers, and Type 3 error as involving excessive compliance, adjustment, enforcement, and litigation costs. Type 3 error includes excessive costs to business firms, government, and the courts. Because potentially anticompetitive mergers typically also may have proefficient effects, and because it often is virtually impossible to predict in such cases which effect will dominate (even on average, not to mention on a case-by-case basis), any policy recommendation will involve extensive error of at least one type. It is easy to devise rules for clearly innocuous, or clearly anticompetitive mergers; the challenge is to devise a policy for marginal situations, where the expected value of the net social benefit of the merger is small, because the expected values (probabilities multiplied by magnitudes) of the efficiency and anticompetitive effects are greatly similar.

Because procompetitive and anticompetitive effects are very complex and hard to predict or measure, case-by-case evaluation of vertical mergers presents enormous litigation problems and is beyond the ability of the court system. The importance of guidelines is to make decision-making manageable for enforcers and for the courts. The alternative of a rule-of-reason (case-by-case) approach is a pipe dream; courts require some structure and in the absence of established standards will evolve their own. The real alternatives are guidelines established by enforcement agencies, presumably based on expert analysis, or guidelines de facto established by court precedent, with a low probability of major involvement of judges with a background in economic theory. We propose Guidelines that we believe are consistent with both economic analysis and the legislative mandate of the Celler-Kefauver Amendment.

The Justice Department twice has issued Guidelines for vertical mergers: in 1968 and in 1982. In Section VII, we evaluate both sets of Guidelines according to the economic, legal, and policy analysis of the previous sections. The main problem with the 1982 Guidelines is that they are not

very useful; primarily, they indicate a broad range of situations when the Justice Department will *investigate* vertical mergers, without indicating how the Department will decide whether to *prosecute*. Moreover, the analysis is so foreign to court precedent that the Guidelines probably will not convince the courts—a major deficiency, given that most vertical merger cases in recent years have been filed by private litigants. The 1968 Guidelines presented a different, unsatisfactory mix: reasonably clear and objective standards far too strict to be justified by economic theory. The inadequacies of the two sets of Guidelines for vertical mergers therefore make the strongest possible case for a fresh attempt to establish improved rules for vertical merger enforcement, the task to which we now turn.

II. THE LEGISLATIVE AND JUDICIAL FRAMEWORK FOR VERTICAL MERGER ENFORCEMENT POLICY

A. Introduction

Enforcement agencies and the courts receive a mandate from congressional legislation. Congress, however, frequently sets only broad guidelines, leaving the courts and the enforcement agencies to interpret and fill in the details. The courts give strong weight to their interpretation of legislative history and to prior decisions (especially by the Supreme Court). Venerable and frequently cited Supreme Court precedent achieves an aura of sanctity [Posner (79)]. On occasion, however, the Supreme Court has reversed itself, partly in response to criticism by legal and economic scholars.[1]

Economic analysis can affect the legal environment for merger policy in two ways: first, by influencing the Justice Department and the Federal Trade Commission in their capacities as prosecutors choosing which mergers to permit and which to challenge; second, by influencing the courts in their interpretation of what situations and behavior constitute anticompetitive acts disallowed by the antitrust statutes. Since the overwhelming majority of antitrust cases are private rather than government,[2] it is insufficient for economists to persuade the enforcement agencies and ignore the courts. For example, merger guidelines consistent with economic analysis but inconsistent with legal and judicial precedent could be an open invitation to private antitrust cases, which could be almost as successful as government suits in preventing a substantial change in the enforcement environment for vertical mergers. A brief discussion of the legislative and judicial history of the antimerger statutes therefore is vital to understanding the consistency of the economic analysis and of policy recommendations with the congressional mandate for antimerger policy.

B. The Congressional Mandate for Vertical Merger Enforcement Policy[3]

In passing the Celler-Kefauver Amendment to the Clayton Act, Congress outlawed mergers whose effect "may be substantially to lessen competition, or to tend to create a monopoly."[4] In the congressional discussion considering the legislation, numerous examples indicate that mergers unlikely to have anticompetitive effects were to be permitted. Although the statute clearly was to cover vertical mergers, there was almost no discussion of mergers between firms and their (actual or potential) customers or suppliers. Virtually the entire congressional analysis implicitly assumed horizontal mergers [Lande (52)]. As Congress does so often in legislation, it passed a law stating a broad principle and left the details of enforcement to the Justice Department, the Federal Trade Commission, interested private parties, and the courts.

The key to determining the legal status of mergers is "anticompetitive," as defined by Congress. By far the most important element in determining anticompetitive status was effect on final price. The main concern of Congress in passing the antitrust statutes was redistribution; the legislators continually condemned mergers for enabling firms to raise prices and thereby unfairly transfer wealth from consumers [Lande (52); Fisher and Lande (38), sec. II; for a contrasting view see Bork (16)]. More specifically, the legislators did not recognize the notions of allocative efficiency, the Lerner index of monopoly power, or Williamson's model of determining the social desirability of a merger through a balancing of deadweight loss and efficiency effects [Lande (52)].[5] Although Congress also had other goals for the antitrust laws, such as promoting corporate efficiency, preserving individual competitors (especially "small businesses"), minimizing aggregate concentration and corporate political power, and promoting internal growth over expansion through merger, all of these goals were secondary to the overriding goal of preventing mergers likely to result in higher prices for consumers.[6]

In implementing standards for legality of mergers, the statutes direct antitrust decision makers and courts to place primary focus on the probable effect on final product price. However, Congress also clearly intended the enforcement agencies, particularly the Federal Trade Commission, to incorporate advances in economic knowledge in implementing the antitrust statutes [Fisher and Lande (38), sec. II.B.]. With respect to vertical mergers, economic analysis [discussed in Section III] isolates some market situations where their most likely effect would be efficiencies, with final product price unlikely to increase.[7] Because such mergers promise social benefits with no offsetting adverse redistributive effects, under both efficiency (i.e., sound public policy) and congressionally man-

dated criteria, they should be permitted. In other market situations, however, vertical mergers may increase overall monopoly power, enhance the ability of oligopolists to collude (implicitly or explicitly) and raise prices, or may raise entry barriers, thereby enabling oligopolists to raise prices. In most of these cases, however, a search for greater efficiency also is consistent with vertical merger. Such mergers, therefore, fit the Williamsonian model of a trade-off between market-power and efficiency effects. Under strict adherence to the legislative analysis of 1950, the enforcers would be obligated to challenge such mergers, and the courts would be obligated to disallow them. However, recognizing the mandate for antitrust enforcement to incorporate the latest economic knowledge, there also is a strong argument to permit some mergers where both efficiency and market-power effects are likely, although the welfare balancing should include redistributive as well as allocative efficiency effects of the mergers [for elaboration, see Fisher and Lande (38), pp. 1588–1593; 1624–1651].

C. Judicial Treatment of Vertical Mergers

The most startling feature of judicial analysis of vertical mergers is that the Supreme Court has only considered their legality under the Celler-Kefauver Amendment twice, and its only thorough treatment was twenty years ago, when the prevailing economic analysis was far sketchier and very different from its present state.[8] The prevailing Supreme Court treatment is *Brown Shoe v. U.S.*, a classic of populist nonanalysis, widely criticized both by economists and legal scholars, in which the Court ordered full divestiture of a merger between a shoe manufacturer with 4 percent of shoe production and a retailer of less than 2 percent of all shoe sales, primarily because of a decrease in the number of shoe manufacturers, from 1,077 in 1947 to "only" 970 in 1954.[9] With this precedent cited in all vertical cases, perhaps it is not surprising that most vertical merger cases since then have led to consents (usually with partial-divestiture or conduct remedies), with few cases even reaching appeals courts. Unlike horizontal mergers, where firms frequently challenge the Guidelines and attempt creative new arguments, we see practically no equally creative defenses of vertical mergers, despite strong theoretical justifications for such defenses.[10] Since no vertical merger has reached the Supreme Court since 1972, there has been no opportunity for the Supreme Court to modernize its analysis of vertical mergers, as it did in 1977 with respect to vertical restraints [see note 1 above].

Given the paucity and age of the Supreme Court treatment of vertical mergers, any summary of judicial treatment must include a caution that no intelligent practitioner would expect the courts or enforcement agen-

cies to maintain the same strict strandards today. However, we cannot be certain how much looser court standards would be today. The methodology of legal analysis we sketch below; in Section III we present a detailed evaluation of the extent to which case law is consistent with economic analysis.

The legal analysis of vertical mergers [see Sullivan (101), pp. 657–669] starts by defining relevant markets and then asks what percentage of the vertically related markets the merger links.[11] The percentage foreclosure from the merger then is the lower of the percentages of the two related markets.[12] Foreclosure, then, represents an estimate of the maximum percentage of self-dealing caused by the merger under the assumptions of constant market shares and full utilization of all potential advantages of vertical integration through merger. In *Brown Shoe*, the Court said that foreclosure of monopoly proportions is sufficient to find a merger illegal and de minimis foreclosure is sufficient to find it legal; for intermediate degrees of foreclosure, the ruling court must initiate a detailed investigation of the economic effects.[13] Within one year, however, the Court realized that thorough economic analysis was beyond its capabilities and held that concentration and market share data alone create a rebuttable presumption of illegality.[14] Although the Court announced this procedure in a horizontal merger, vertical cases follow the same methodology: no vertical merger case has provided a detailed analysis of competitive effects, and the prosecution rarely has gone beyond giving concentration and foreclosure percentages and alleging that the figures themselves prove anticompetitive effects [Sullivan (101), pp. 662–663].

The primary adjustment to foreclosure as the determinant of legal analysis is "incipiency." Because of extreme antipathy toward trends that may harm competition in the future, the courts have disallowed vertical mergers with foreclosure percentages that even the populist Warren Court conceded of themselves would not threaten competition. The courts have appealed to incipiency whenever they believed that they could detect either increasing concentration in one of the markets or increased vertical integration among firms in the markets in question.[15] Note, however, that Congress intended to forbid only anticompetitive foreclosures and trends ultimately likely to have anticompetitive consequences, not all vertical integration. The courts have not analyzed the conditions under which foreclosure and incipiency might have the adverse effects they feared in passing the antitrust statutes. We undertake this analysis in Section IV and demonstrate that the courts have been overly strict in preventing vertical mergers and thereby have frustrated the intent of Congress. This analysis, however, requires knowledge of the economics of vertical integration, the subject of Section III.