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Vertical mergers in the technology, media and telecom sector – Note by the United States

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United States

1. Introduction

1. The U.S. Department of Justice ("DOJ") and Federal Trade Commission ("FTC") analyze vertical theories of harm for mergers where the commercial relationship between the parties involves complementary assets, goods, or services. The textbook vertical arrangement is between a goods manufacturer and either an "upstream" input supplier or a "downstream" retailer, but many other sorts of commercial relationships also can be categorized as vertical. Section 7 of the Clayton Act prohibits a merger including those between firms in a vertical relationship, if the effect of the acquisition may be substantially to lessen competition, or to tend to create a monopoly, in any relevant market.[1] To the extent that vertical mergers differ in fundamental ways from horizontal mergers, merger analysis appropriately takes these differences into account.

2. While horizontal mergers necessarily eliminate competition between the merging firms, vertical mergers involve firms that do not compete, and thus often have no anticompetitive tendency. Rather, they may promote efficient and effective coordination, thereby reducing or eliminating transaction costs and allowing for profit maximization over a larger set of complementary products. Vertical mergers are one manifestation of the more general insight of Ronald Coase that firm boundaries are set to withdraw from the market all those functions that are more profitably organized within a firm. Of course, vertical mergers do not invariably promote efficiency, and they can be anticompetitive.

3. A vertical merger can solve the problem of "double marginalization." In a vertical relationship where there is no coordination, and where the upstream entity charges a per unit price, the upstream entity maximizes profit by equating marginal revenue and marginal cost, and thus charges a price above its marginal cost. The upstream margin over cost is then incorporated into the marginal cost of the downstream entity, which also maximizes profits by equating marginal revenue and marginal cost, and thus charges a price above its marginal cost. If these two entities merge, they internally transfer the upstream product at marginal cost and consequently lower the downstream price. And the merger increases the firms' total profits even though the final product price decreases. Elimination of double marginalization, or "EDM," can be a significant benefit from a vertical merger and may result in lower prices to consumers. A related effect was identified by Cournot in 1838. Under this effect, a single entity selling two complementary goods charges a lower price than independent sellers of each good. This results because the single entity has an incentive set lower prices for each good to increase the sales of the complementary good.

4. Because double marginalization is inefficient, real-world firms have an incentive to avoid it, and a contractual solution eliminating EDM might be feasible instead of a merger. For example, an input-supply contract could set a price for the input equal to its marginal production cost but also require the buyer to pay its supplier a fixed annual fee. Real-world contracts can be complicated, and subtle ways might be found to transfer value in a manner that is independent of the quantity of the input supplied. The potential for a vertical merger to generate benefits from EDM, thus, depends on the extent to which market

1 Brown Shoe Co. v. United States, 370 U.S. 294 n.30 (1962).

power upstream and downstream had made double marginalization a problem in the first instance and the extent to which the parties could solve the problem without merging.[2]

2. Evolution of Vertical Merger Theories in the United States

5. In the 1960s and 1970s, the DOJ and FTC challenged mergers on the basis of foreclosure concerns. When the U.S. Supreme Court decided its first vertical merger case on the merits in 1962, it observed that: "The primary vice of a vertical merger . . . is that, by foreclosing the competitors of either party from a segment of the market otherwise open to them, the arrangement may act as a clog on competition, which deprives rivals of a fair opportunity to compete."[3] The 1962 decision involved a merger in the shoe business. The Supreme Court observed that past retailer acquisitions by shoe manufacturers had led to increased sales of the manufacturers' shoes by the acquired retailers, and that fact was enough for the Court to conclude that the merger "may foreclose competition from a substantial share of the markets."[4] Of course, the foreclosure scenario in *Brown Shoe* is not the only one considered in 1960s and 1970s vertical merger cases.[5]

6. By the 1980s, antitrust scholars explored variations on the classic vertical foreclosure scenario to show how a withdrawal from the input market, on the part of a newly integrated input supplier, could raise its unintegrated downstream rivals' costs by

2 When evaluating whether the parties could solve the problem of EDM without a merger, the DOJ and FTC bear in mind that "[o]nly alternatives that are practical in the business situation faced by the merging firms are considered in making this determination. The Agencies do not insist upon a less restrictive alternative that is merely theoretical." HMG §10. Tirole (pp. 176-77) discusses various reasons why contracts (e.g., 2-part tariffs) might not suffice to eliminate the inefficiencies created by successive monopolies. See Tirole, The Theory of Industrial Organization (1988).

3 Brown Shoe Co. v. United States, 370 U.S. 294, 333–34 (1962) (internal quotation marks, indications of alteration, and citations omitted). Later decisions recognized that vertically integrated firms will not automatically foreclose, but rather act rationally: "A vertically integrated firm seeking to increase profits will engage in self-dealing if the supplying division's output cannot be more profitably sold elsewhere, or is not more costly or inferior than the product of outside suppliers." Alberta Gas Chemicals Ltd. v. E.I. du Pont de Nemours & Co., 826 F. 2d 1235, 1244–45 (3d Cir. 1987).

4 Brown Shoe, 370 U.S. at 332–34.

5 Notable in this regard is the acquisition by Ford Motor Co. of assets of Electric Autolite Co. The number-one auto producer, General Motors, had long self-supplied spark plugs. The number-two producer, Ford, sourced spark plugs from independent producer Champion. And the number-three producer, Chrysler, long had been supplied by Autolite. When Chrysler turned away from Autolite and toward self-supply, Autolite sought Ford's business. Ford took this opportunity to vertically integrate by acquiring Autolite's spark plug manufacturing plant and trademark. DOJ challenged the consummated acquisition, and a trial court ruled in DOJ's favor. United States v. Ford Motor Co., 286 F. Supp. 407 (E.D. Mich. 1968). The Supreme Court affirmed the judgment. Ford Motor Co. v. United States, 405 U.S. 562 (1972). The courts focused on the effect of the merger on competition to supply aftermarket spark plugs used in auto maintenance. Mechanics tended to use the same brand the auto manufacturer had used, so acquiring the Autolite assets put Ford in a position to sell most of the aftermarket spark plugs for Ford cars. The Court held that the merger was anticompetitive because it foreclosed independent spark plug producers, such as Champion, from selling spark plugs for Ford cars.

forcing it either to become vertically integrated itself or by requiring it to purchase from a more costly supplier.[6] Further developments in scholarship showed that, under some conditions, a vertical merger could be harmful even if the merged firm continued to deal with rivals. For example, a newly integrated input supplier could raise the price at which it supplies rivals. By charging rivals a higher price, the vertically integrated firm increases the rivals' marginal cost, which causes them to raise their prices. The merged firm may profit both from additional profitable sales as some of its rivals' customers switch away due to the higher prices, and from raising its own price in response to its rivals' price increases.[7]

7. The profit calculus of this particular raising-rivals'-costs strategy depends generally on (1) the margin earned by the merged firm on sales of the input to rivals, (2) the demand faced by the rivals, (3) the extent to which customers switch to the merged firm's product and away from the rival's product as their prices rise, and (4) the margin earned by the merged firm on the new customers it picks up. If these factors can be estimated with reasonably accuracy in a merger investigation, it may be feasible to estimate the extent to which a vertical merger would induce input price increases and the extent to which downstream prices would increase.

8. Where the upstream and downstream markets are both highly concentrated and firms engage in unit pricing, a vertical merger is more likely to generate benefits from EDM. Accordingly, assessing the impact of a vertical merger under these theories requires balancing any potential competitive harm against EDM and other efficiencies.[8]

9. Another concern with vertical mergers is their potential impact on entry. The concern is that post-vertical merger market conditions could deter or prevent entry because it would require two-stage entry (*i.e.*, a new firm would need to enter at both the upstream and downstream levels) or otherwise raise the costs of entering a market.[9] An additional focus is whether the merging firms are most likely to enter each other's markets or another market in competition with each other.[10] For this to be the case, there must be some feature of the market at issue that indicates that having a presence in another part of the distribution chain would make it more likely either for the merging firms to enter each other's markets,

6 See, e.g., Steven C. Salop & David T. Scheffman, Raising Rivals' Costs, 73 Am. Econ. Rev. (Papers & Proceedings) 267 (1983); Steven C. Salop & David T. Scheffman, Cost-Rasing Strategies, 36 J. of Indus. Econ. 19 (Sept. 1987); Michael Salinger, Vertical Mergers and Market Foreclosure, 103 The Quarterly J. of Econ. 345 (May 1988); Jay Pil Choi & Sang-Seung Yi, Vertical Foreclosure with the Choice of Input Specifications, 31 Rand J. of Econ. 717 (2000). See also Thomas G. Krattenmaker & Steven Salop, Anticompetitive Exclusion: Raising Rivals' Costs to Achieve Power over Price, 96 Yale L.J. 209 (1986).

7 An additional theory of harm from a vertical merger is customer foreclosure, in which the merging downstream firm refuses to buy from competitors of the upstream supplier, harming upstream rivals and allowing the merged firm's upstream business to raise prices.

8 See. e.g., Steven C. Salop, Invigorating Vertical Merger Enforcement, 127 Yale L.J. 1962, 1980-81 (2018).

9 Id. at 1976.

10 Id.

as compared to de novo entry by another firm, or that create an incentive for one of the merging firms to sponsor entry by another firm.[11]

10. Vertical mergers also may have coordinated effects, which could provide the basis for challenging the merger. The combined firm's access to competitively sensitive information may increase the likelihood of coordination in a market. For instance, the upstream level may learn the confidential business plans of its customers, who are the rivals of the firm at the downstream level. This information could facilitate coordination by lowering costs of monitoring compliance with a price-fixing agreement. Additionally, in an industry where other firms are vertically integrated and the merger brings the combined firm's incentives more closely in line, the merger may lead to elevated prices if the firms recognize the interdependence of their unilateral pricing decisions.

3. United States v. AT&T Case

11. Although both the DOJ and FTC have challenged vertical mergers,[12] the only recent FTC or DOJ litigated vertical merger challenge involved AT&T, Inc.'s acquisition of Time Warner Inc. DOJ challenged the proposed acquisition in November 2017 primarily on a raising-rivals' costs-theory. After a bench trial, the district court rejected DOJ's challenge.[13] The appeals court affirmed the judgment in February 2019.[14] The D.C. Circuit held that the district court had not committed clear error in finding that DOJ's theory of harm was insufficiently supported by industry-specific facts.[15]

12. The case concerned pay television, and thus involved technology, media, and telecommunications. Pay television in the United States has four vertical levels. At the top of the vertical supply chain, creators produce "content," such as drama series and live sports. At the next level down, "programmers" package the content into networks comparable to traditional over-the-air channels. A single programmer typically owns multiple networks, which it licenses (usually as a bundle) to downstream "distributors,"

11 See, e.g., FTC Press Release, "FTC Seeks to Block Cytyc Corp.'s Acquisition of Digene Corp.," available at https://www.ftc.gov/news-events/press-releases/2002/06/ftc-seeks-block-cytyc-corps-acquisition-digene-corp.

12 Steven C. Salop & Daniel P. Culley, Revising the Vertical Merger Guidelines: Policy Issues and an Interim Guide for Practitioners, 4 J. Antitrust Enforcement 1, appendix (2016). Two recent speeches by senior officials at the U.S. antitrust agencies also lay out a number of recent agency enforcement actions and the theories underlying them. D. Bruce Hoffman, Director, Bureau of Competition, Fed. Trade Comm'n, Vertical Merger Enforcement at the FTC, Credit Suisse 2018 Washington Perspectives Conference (Jan. 10, 2018), available at https://www.ftc.gov/public-statements/2018/01/vertical-merger-enforcement-ftc; Jon Sallet, Deputy Assistant Att'y Gen., Antitrust Div., U.S. Dep't of Justice, The Interesting Case of the Vertical Merger, Remarks at the Am. Bar Ass'n Fall Forum (Nov. 17, 2016), available at https://www.justice.gov/opa/speech/deputy-assistant-attorney-general-jon-sallet-antitrust-division-delivers-remarks-american.

13 United States v. AT&T, Inc., 310 F. Supp. 3d 161 (D.D.C. 2018).

14 United States v. AT&T, Inc., 916 F.3d 1029 (D.C. Cir.2019).

15 See id. at 1038 ("the issue is whether the district court clearly erred in finding that the government failed to clear the first hurdle in meeting its burden of showing that the proposed merger is likely to increase Turner Broadcasting's bargaining leverage").

which then deliver various packages of networks to their "subscribers." Traditional pay television distributors are termed "multichannel video programming distributors" ("MVPDs"). They consist of the cable television providers, telephone companies that offer video subscription service through fiber optic cable, and two direct satellite providers—DirecTV and DISH. In addition, the United States has virtual MVPDs, which deliver content over the internet.

13. AT&T is the largest pay television distributor in the United States through its ownership of DirecTV (and its legacy MVPD U-Verse, and virtual MVPD DirecTV Now). Time Warner is a major programmer. DOJ argued that the merger was anticompetitive in that it would, among other things, lead AT&T to demand and receive a significant increase in the amount MVPDs pay for Time Warner content and hence cause a significant increase in the amount subscribers pay for television. DOJ's expert estimated that AT&T's MVPD rivals would pay $587 million per year more for Time Warner content. Under the 2016 market configuration, he estimated that would result in subscribers paying $286 million per year more for television subscriptions.

14. To generate these estimates, DOJ's expert drew on the economics of bargaining because the fees MVPDs pay programmers are set in contracts with terms determined through bilateral bargaining. Relative to the no-deal outcome, making a deal produces a gain, and the parties bargain to maximize the gain and allocate it between them. Economists often assume the gain is divided equally.[16] No matter how the gain is divided, the economics of bargaining predicts that the outcome of bargaining is altered by anything that changes the gain from making a deal, and that gain is altered by a change in either party's profit in the event that they fail to make a deal.

15. After AT&T acquired Time Warner, DOJ argued, failing to reach agreement with a rival distributor would be less costly to the merged company than it had been to Time Warner. DOJ contended that the reason is that AT&T would pick up some profitable new DirecTV subscribers when some of the subscribers to the rival MVPD switched away due to the loss of Time Warner programming. While the existence of this effect from the merger may be intuitive, its size and significance is not, and U.S. law makes mergers unlawful only if they have a "reasonable probability" of substantially lessening competition.[17]

16. DOJ argued that the post-merger cost to AT&T of failing to strike a deal with a particular MVPD is less than the pre-merger cost to an independent Time Warner by an amount that is the product of three quantities: (1) the "subscriber loss rate," which is the proportionate reduction in subscribership for a distributor if it permanently loses Time Warner programming; (2) the "diversion rate," which is the proportion of lost subscribers that are instead DirecTV (or U-Verse) subscribers; and (3) AT&T's "margin," which is AT&T's per-subscriber profit on diverted subscribers. All three quantities were vigorously disputed at trial.

17. When any of AT&T's rival distributors loses Time Warner content, the distributor's subscribers have the option of switching to another distributor that does have Time Warner's content, and they have the option of dropping pay television altogether. The

16 Equal sharing of the gains is the "Nash solution" to the bargaining problem. See John Nash, Two-Person Cooperative Games, 21 Econometrica 128 (1953); John Nash, The Bargaining Problem, 18 Econometrica 155 (1950).

17 United States v. AT&T, Inc., 916 F.3d at 1031.

combined proportion of the distributor's subscribers that do either of these things is the subscriber loss rate. What a distributor is willing to pay for any particular content is closely related to the subscriber loss rate associated with that content.

18. Every programmer able to negotiate a positive fee with a distributor for its content has some power over that distributor, and it is possible for many programmers to have significant power over a distributor at the same time. The reason is that the loss of the content from any of several programmers could lead to significant subscriber loss. Suppose, for example, that all content is controlled by five programmers, and that losing the content of any one programmer would cause 10% of the distributor's subscribers to cancel their subscriptions. Each programmer then would have significant power and be able to bargain for a substantial fee for its content.

19. DOJ argued that if the subscriber loss rate associated with a particular programmer is believed to be significant, its exact magnitude is unlikely to be directly observed: Because the programmer and distributor generate a large gain that they share by reaching agreement, they almost certainly will reach agreement. And so it has been with Time Warner and large distributors. Because Time Warner had never permanently "gone dark" on a large distributor before the merger, DOJ contended that there was no direct way to measure a relevant subscriber loss rate. Nevertheless, subscriber loss rates are vitally important to distributors in bargaining with programmers, so they make efforts to estimate them.

20. DOJ argued that Time Warner garnered a substantial fee for its content prior to the merger, indicating power over distributors attributable to positive subscriber loss rates. DOJ further argued that the incremental power arising from the merger overall is the product of all three quantities in paragraph 16. If none of the subscribers that leave distributors when they lose Time Warner content switch to DirecTV (or U-Verse), the merger adds nothing to Time Warner's power. Likewise, if AT&T earns no margin on new customers it gets from other distributors, the merger adds nothing to Time Warner's power. These quantities may be small, in which case the merger would add little to Time Warner's power.

21. Determining AT&T's margin might seem like a simple matter, but it is not. Of interest is the present value of the excess of revenue over cost attributable to new subscribers. This present value depends on the one-time costs of customer acquisition and installation, and on how long new customers remain DirecTV subscribers. Although data informs this present value calculation, the calculation requires assumptions, and it can be sensitive to the assumptions made.

22. The district court was unpersuaded that the inputs to the DOJ's bargaining model were sufficiently large to change the bargaining leverage of the merged firm. The court did not determine an appropriate subscriber loss rate, diversion rate, or margin. Instead, it found that the quantities DOJ and its expert had used were based on simplifying assumptions that yielded a result too speculative to meet the government's burden.

23. Because the district court found the evidence too speculative that the merged entity would be able to raise rivals' costs, it did not need to consider whether the merger would result in cost savings for consumers from the elimination of double marginalization. At trial, the government put on evidence that AT&T would not pass through more than a portion of its cost savings from the elimination of double marginalization. To estimate pass through and the net effect on consumer prices, DOJ's expert relied on a conventional merger simulation.

24. The DOJ additionally argued that the merger would give AT&T an opportunity, which it would take, to blunt the competition DirecTV (and other MVPDs) face from new forms of media distribution, including virtual MVPDs. These new forms of media distribution have been gaining subscribers at the expense of MVPDs. Virtual MVPDs license much of the same content as MVPDs, including Time Warner content. The government presented evidence that after the merger, AT&T could blunt competition from virtual MVPDs with several strategies. One was the same raising rivals' cost strategy already discussed, which could also work effectively against virtual MVPDs. Another strategy was insisting on licensing Time Warner content only as a large bundle. This would frustrate, DOJ argued, the virtual MVPDs' efforts to offer a cheaper alternative to MVPDs by selling a "skinny bundle" rather than the hundreds of channels in most MVPD packages. Although the district court found the evidence for the theory of harm lacking, the D.C. Circuit confirmed that this sort of effect on quality or innovation was a valid basis for enjoining a merger even without quantification evidence.[18]

25. The D.C. Circuit concluded that, while the district court "undoubtedly made some problematic statements, which the government identifies and this court cannot ignore," ultimately the district court did not clearly err in deciding that the evidence did not rise to the level of showing that the proposed merger was likely to increase bargaining leverage.[19]

26. The DOJ and FTC continue to adhere to the policy stated in their contribution to the 2007 Competition Committee Roundtable on Vertical Mergers that vertical mergers "should be allowed to proceed except in those few cases where convincing, fact-based evidence relating to the specific circumstances of the vertical merger indicates likely competitive harm."[20] The AT&T decisions did accept that vertical mergers can be harmful to competition where they create a combination of the incentive and ability to harm competitors to the detriment of consumers. The D.C. Circuit confirmed that the Clayton Act applies to vertical mergers to halt "incipient . . . trade restraints" and, therefore, requires "a much more stringent test than does the rule-of-reason analysis under section 1 of the Sherman Act."[21] The DOJ and FTC will therefore continue to evaluate vertical theories of harm in proposed mergers, and will consider challenging a merger when the facts show that the combined entity would be "more favorably positioned after the merger to assert its leverage" in the vertical supply chain to foreclose rivals or raise their costs materially.[22]

18 Id. at 1045 ("Vertical mergers can create harms beyond higher prices for consumers, including decreased product quality and reduced innovation.").

19 Id. at 1038.

20 United States Submission, OECD Policy Roundtable on Vertical Mergers, 239 (2007), available at http://www.oecd.org/daf/competition/mergers/39891031.pdf.

21 United States v. AT&T, Inc., 916 F.3d at 1032 (quoting Rothery Storage & Van Co. v. Atlas Van Lines, Inc., 792 F.2d 210, 220 (D.C. Cir. 1986)).

22 Id. at 1040 (accepting the Nash bargaining theory as an appropriate predictor of harm, if applicable to the facts of the industry).