Vertical Mergers in the United States

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There is broad consensus in the United States about the basic framework for evaluating horizontal mergers between competitors. To be sure, disputes frequently arise over whether a particular merger will prove anticompetitive, but those disputes are most often about the facts or how to apply the facts to the analytical construct; they rarely concern the framework for analysis itself. This is due to wide common ground about the factors that make a proposed merger more or less likely to lessen competition and a rich body of guidance in the form of agency guidelines, reported cases, and agency settlements.

The standards for evaluating vertical mergers involving firms at different levels of the supply chain are far murkier. Though there is general agreement that vertical mergers typically raise fewer competitive concerns than horizontal ones, there is much less agreement about the analytical standards that should apply to the competitive analysis. The uncertainty is compounded by the scarcity of judicial authority, well-accepted guidelines, or agency enforcement actions.

That the US agencies have mounted relatively few recent challenges to vertical mergers does not mean they have no interest in the subject. Indeed, just in the past 12 months, Federal Trade Commission (FTC) Commissioner Pamela Jones Harbor, ¹ FTC Bureau of Economics

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Pamela Jones Harbor, *Vertical Restraints: Federal and State Enforcement of Vertical Issues* (2005) *available at* http://www.ftc.gov/speeches/harbour/050329vertical.pdf.

Director Michael A. Salinger,² and former FTC Chairman Robert Pitofsky,³ have all spoken or written about vertical merger enforcement issues and the difficulties that confront antitrust enforcers in trying to accurately predict whether a particular vertical merger will lessen competition.

These remarks reflect the uncertainty permeating vertical merger review; none do much to clarify when mergers are likely to be challenged on vertical grounds in the future: Pamela Jones Harbour is concerned about under-enforcement and calls for increased law enforcement efforts, while acknowledging that more scholarship and empirical research is needed; Michael Salinger describes the difficulties inherent in accurately modeling the competitive effects of vertical mergers;⁴ and Robert Pitofsky observes that academics and enforcement officials still lack a consensus in their views about vertical mergers.⁵

It is not surprising that the agencies bring comparatively few challenges to vertical mergers. On the one hand, vertical mergers often bring about substantial efficiencies by

Michael A. Salinger, *Is it live or is it Memorex? Models of Vertical Mergers and Antitrust Enforcement*, delivered at Association of Competition Economics (ACE) Seminar on Non-Horizontal Mergers, Competition Commission, London, UK, September 7, 2005, and Fondation Universitaire, Brussels, Belgium September 8, 2005, available at http://www.ftc.gov/speeches/salinger/050927isitlive.pdf.

See Robert Pitofsky, Past, Present and Future of Antitrust Enforcement at the Federal Trade Commission, 72 U. Chi. L. Rev. 209, 210 (2005); see also, James C. Cooper, Luke M. Froeb, Dan O'Brien, and Michael G. Vita, Vertical Antitrust Policy as a Problem of Inference (2005) available at http://www.ftc.gov/speeches/froeb/050218verticalecon.pdf (recommending that, given the current state of knowledge about vertical restraints, "enforcement policy should be guided by ... draw[ing] inferences about the competitive effects of the restraint from a natural experiment. The quality of the experiment and how closely it mimics the effect of the restraint would be issues for the court or decision maker to resolve.")

⁴ *Vertical Restraints: Federal and State Enforcement of Vertical Issues, supra* note 1 at 16.

⁵ Pitofsky, *supra* note 3 at 210.

facilitating better products through increased integration,⁶ lowering transaction costs, or reducing production or distribution costs.⁷ On the other, vertical mergers threaten harm to consumers only in narrow circumstances.⁸ Such transactions could be harmful, for instance, if an input manufacturer could limit access to critical components that its downstream rivals need, and thereby gain monopoly rents;⁹ or the merger might facilitate collusion among downstream manufacturers by allowing the combined firm to monitor its competitors' output by tracking their input purchases.

The dilemma for enforcement officials has been how to weigh pro-competitive efficiencies from vertical integration against (often uncertain) prospects that the merger might have anticompetitive consequences. This balancing, moreover, is complicated by widely varying views among enforcement officials, ranging from a belief that vertical mergers are rarely anything but pro-competitive or benign¹⁰ to fears that under-enforcement may be causing the

See Synopsis Inc., FTC File No. 021-0049 (July 26, 2002) (Statements of Commissioners Anthony, Thompson and Leary), available at http://www.ftc.gov/os/2002/07/advantanthonystmnt.htm; http://www.ftc.gov/os/2002/07/advantthompsonstmnt.htm;

http://www.ftc.gov/os/2002/07/advantlearystmnt.htm.

See FTC Commissioner, Christine A. Varney, Vertical Merger Challenges at the FTC (1995), available at http://www.ftc.gov/speeches/varney/varta.htm.

Philip E. Areeda, Herbert Hovenkamp & John Solow, IIA ANTITRUST LAW 278 (1995).

See William J. Kolasky, Dep.'y Ass't Att'y Gen., Antitrust Division, Conglomerate Mergers and Range Effects: It's a Long Way From Chicago to Brussels, Remarks Before the George Mason University Symposium (Nov. 9, 2001), available at http://www.usdoj.gov/atr/public/speeches/9536.htm#P51_7584; Final Judgment filed in United States v. Premdor Inc., No. 1:01CV01696 (D.D.C. 2001); see generally Michael H. Riordan & Steven C. Salop, Evaluating Vertical Mergers: A Post-Chicago Approach, 63 Antitrust L.J. 513 (1995).

See, Cooper, Froeb, O'Brien and Vita, supra note 3.

enforcement agencies to clear vertical deals that harm consumers in subtle ways.¹¹ And absent a well-settled framework for identifying those vertical mergers that are likely to lessen competition, the US agencies may be reluctant to risk impeding efficiencies that benefit consumers based on competitive concerns that may be chimerical.

In this paper, we first briefly review the litigated cases concerning vertical mergers, which are principally of historical interest only. Next, we discuss the Department of Justice's largely outdated guidelines on the subject. Finally, we survey some recent US enforcement efforts in the vertical merger area, which provide the best – albeit somewhat limited – insight into the sort of factors that make a challenge more likely.

Litigated Cases

The litigated cases involving agency challenges to vertical mergers shed little light on vertical merger enforcement today, although they help to put in context more modern analysis. The most recent Supreme Court case is 34 years old, 12 with prominent earlier decisions in the $1950s.^{13}$ These early cases focused on foreclosure of a portion of either the downstream or upstream market to competitors -e.g., competitors in the upstream market would no longer be able to distribute their products through the retail stores of the merged company. Foreclosure was seen as the "primary vice of a vertical merger," based on the concern that "the arrangement may act as a 'clog on competition' which deprive[s] . . . rivals of a fair opportunity to

See Pamela Jones Harbor, Vertical Restraints: Federal and State Enforcement of Vertical Issues (2005) available at http://www.ftc.gov/speeches/harbour/050329vertical.pdf.

¹² Ford Motor Co. v. United States, 405 U.S. 562 (1972).

¹³ United States v. E.I. du Pont de Nemours & Co., 353 U.S. 586 (1957); Brown Shoe Co. v. United States, 370 U.S. 294 (1962).

compete."¹⁴ The proportion of the market foreclosed in many of these early cases, however, was so small (less than 5% in the *Brown Shoe* case for example¹⁵), that it is difficult for antitrust practitioners today to understand the courts' competitive concerns.

Academics criticized these cases on many grounds. That downstream competitors may have lost a source of supply (*i.e.* the combined firm would now consume its upstream products, rather than selling them to downstream rivals) does not necessarily mean that downstream rivals will be left without alternative supply sources – at least so long as the merged firm lacks substantial market power in the upstream market. Other upstream suppliers might be able to increase output; or having lost their former sales to the now vertically-integrated firm, upstream competitors should have free capacity to sell to the downstream competitors of the merged firm. As Judge Robert Bork once put it, concerns about foreclosure could generally be resolved through an "industry social mixer," where the non-merging suppliers with newfound capacity on their hands could meet, greet, and reach deals with former purchasers from the vertically-integrated firm who need a new supplier. Furthermore, in most circumstances, a monopolist supplier cannot increase its monopoly rents though vertical integration because there is only a

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¹⁴ See Brown Shoe, 370 U.S. at 323-24.

Id. at 298 & 303 (*Brown Shoe* involved a shoe manufacturer accounting for 4% of manufactured shoes in the US acquiring a retailer accounting for 2% of all shoes sold).

Robert H. Bork, The Antitrust Paradox (1978) at 232.

single monopoly rent that can be taken only once in the supply chain.¹⁷ These early cases, moreover, typically ignored the pro-competitive efficiencies generated by vertical integration.¹⁸

In the years following these criticisms, a few courts have found vertical mergers lawful in the context of private actions.¹⁹ Government agencies and academics, have continued to explore when challenges to vertical mergers might be warranted, often under refined theories associated with "Post-Chicago" analysis of the conditions under which such mergers may harm consumers.²⁰ Courts have had few opportunities to address vertical mergers, however, because most government challenges have resulted in settlement or abandonment of the transaction.

Vertical Merger Guidelines

The US Department of Justice and Federal Trade Commission 1992 Horizontal Merger Guidelines have provided an analytical framework for the review of horizontal mergers that has stood the test of time at the agencies and has been increasingly adopted in judicial decisions as well. By contrast, although the Department of Justice issued "Non-Horizontal Merger

¹⁷ See ABA Antitrust Section, MERGERS AND ACQUISITIONS, UNDERSTANDING THE ANTITRUST ISSUES 353 (2d ed. 2004).

See Ford Motor Co., 405 U.S. at 570 (refusing to credit defendant's arguments that the vertical merger created a more effective competition because "a value choice of such magnitude is beyond the ordinary limits of judicial competence," *quoting United States v. Philadelphia National Bank*, 374 U.S. 321, 371 (1963)).

See, e.g., Alberta Gas Chemicals Ltd. v. E.I.duPont de Nemours & Co., 826 F.2d 1235 (3d Cir. 1987); Fruehauf Corp. v. FTC, 603 F.2d 345 (2d Cir. 1979).

Jeffrey Church, *The Impact of Vertical and Conglomerate Mergers on Competition* 7 (European Commission 2004), *available at* http://europa.eu.int/comm/competition/mergers/others/merger impact.pdf.

Guidelines" in 1982 and revised them in 1984,²¹ those Guidelines have had little lasting influence.

The Guidelines emphasize the potential benefits of proposed mergers and in fact say that enforcement officials "will give relatively more weight to expected efficiencies in determining whether to challenge a vertical merger than in determining whether to challenge a horizontal merger."²² They identify four categories of possible harm from vertical mergers.

- o A vertical merger might raise barriers to entry by making it necessary for new entrants to enter both the upstream and downstream markets simultaneously.
- o The downstream party to the transaction might be a potential entrant to the upstream participant's market, or vice versa; in such cases, the merger would eliminate a potential entrant, which might have anticompetitive consequences.
- o A vertical merger might facilitate collusion by making it easier to monitor prices, or by eliminating a disruptive buyer; that is, a buyer sufficiently important that upstream suppliers might deviate from a collusive agreement to try to secure its business.
- o Finally, in regulated industries, vertical mergers might facilitate the avoidance of price controls.

Notably, these Guidelines do not discuss the potential for the vertically integrated firm to use its position, post merger, to eliminate or weaken its rivals by denying them access to suppliers or customers, or raising their costs. In part, because most of the agencies' recent cases

Non-Horizontal Merger Guidelines *available at* http://www.usdoj.gov/atr/public/guidelines/2614.htm. These Guidelines were originally a section of the Merger Guidelines issued by the Department of Justice in 1984. All of the other sections of the Merger Guidelines were superceded by the 1992 Horizontal Merger Guidelines, which then were revised in 1997.

²² *Id.* at 4.24.

have been brought on such theories, the Guidelines provide little help in predicting which vertical mergers the agencies will challenge or in framing the agencies' analysis. Indeed, a former Chairman of the FTC, when commenting on the decision process for challenging vertical mergers has said "my guiding principle in deciding which challenges to initiate was to ignore the vertical merger guidelines. They are hopelessly out of date, and they ought to be revisited." There is, however, no indication that the agencies have any plans to develop new vertical merger guidelines in the foreseeable future.

Recent Enforcement Actions

In the last several years, the Department of Justice and the FTC have brought a handful of cases challenging vertical mergers. In addition, the agencies have explained why, in some instances, they have not brought challenges to mergers based on vertical concerns. The analysis, as always, turns on the particular facts of each case, and one must be cautious in drawing broad conclusions from the limited sample. Nevertheless several themes seem to emerge from the agencies' actions:

o The agencies will closely analyze whether, in light of the particular facts, the merged firm will have the incentive and the ability to engage in conduct that will harm consumers. For instance, would a strategy of refusing to supply inputs to downstream competitors prove a profitable strategy because those competitors would then be unable to find economical alternative sources of supply? Or would such a strategy merely result in lost sales – with no gain of monopoly rents – because other upstream suppliers

Robert Pitofsky in the Federal Trade Commission 90th Anniversary Symposium, *A Conversation with Tim Muris and Bob Pitofsky* 172 (2004), *available at* http://www.ftc.gov/ftc/history/transcripts/040922transcript003.pdf.

- would step in and supply the downstream competitors at prices that allow them to compete vigorously in the downstream market?
- o The enforcement actions have typically involved circumstances where both the upstream and downstream markets would be highly concentrated post-merger.
- o The potential for vertical mergers to facilitate exchanges of information among competitors and thus to facilitate coordination is sometimes a factor in challenging vertical mergers, especially in the defense industry. For example, if a downstream firm acquires an upstream supplier, it may gain new information about its downstream competitors' output decisions or product development activities through its role as a supplier to the downstream market.
- o The agencies are less likely to challenge mergers when there are substantial efficiencies inherent in the merger to weigh against potential vertical anticompetitive effects.

Cytyc/Digene

In 2002, the FTC announced its intention to prevent Cytyc Corporation from acquiring Digene Corporation.²⁴ Each company made one of two complementary products to screen women for cervical cancer: Cytyc made a liquid-based Pap test used for primary screening and Digene made a HPV test for follow-up testing of samples that are not initially screened out. According to the FTC, the most common and efficient way to conduct the HPV test was to use the residual sample from the liquid test; thus, it is important that the two tests have received US Food and Drug Administration (FDA) approval to be used in tandem.

Press Release, Federal Trade Commission Seeks to Block Cytyc Corporation's acquisition of Digene Corporation, FTC File No. 021-0098 (June 24, 2002), *available at* http://www.ftc.gov/opa/2002/06/cytyc_digene.htm.

At the time of the transaction, Cytyc was one of two companies with an FDA-approved liquid-based test, and its products enjoyed a 93% share of such tests. Digene was the only supplier of HPV tests in the United States, and its product was FDA certified to work with Cytyc's test only. The FTC alleged that the combined company could harm current and future competitors in liquid-based Pap tests by limiting their access to Digene's HPV test, and by refusing to cooperate with rivals' efforts to gain FDA approval to use their tests in conjunction with Digene's HPV test. Furthermore, the FDA alleged that Digene's HPV test was a likely entrant in the primary screening market currently occupied by liquid-based tests; thus, the merger would eliminate a potential entrant into a highly concentrated market.

Soon after the FTC announced its intention to challenge the transaction, the parties abandoned the deal.

Synopsys/Avant!

One month after challenging the Cytec/Digene merger, the FTC announced that it was dropping its investigation of another vertical merger involving complementary products:

Synopsys, Inc.'s acquisition of Avant! Corporation. The products involved were "front-end" and "back-end" software for computer chip design. Synopsys had a 90% share of front-end software; Avant! had a 40% share in "place and route" or back-end software. Traditionally, front-end and back-end software were used together and communicated with each other through standard formats. Thus, most back-end software could be used with most front-end software, regardless of the supplier.

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Press Release, Federal Trade Commission Votes to Close Investigation of Acquisition of Avant! Corporation by Synopsys, Inc, FTC File No. 021-0049 (July 26, 2002), *available at* http://www.ftc.gov/opa/2002/07/avant.htm.

As described, the merger seemed to raise potential issues similar to those that caused the FTC to challenge the Cytyc/Digene merger. Indeed, the FTC investigated whether, post-merger, Synopsys would have the ability and the incentive to make its front-end software incompatible with competitors to Avant!'s software product. Although the FTC did not recount the details of its investigation, the Commissioners said they did not have sufficient evidence to believe that the combined company would have the ability and incentive to engage in such conduct.²⁶ Further, the FTC recognized that the merger might facilitate seamless integration of front-end and backend software, which would greatly benefit consumers. In that regard, it focused squarely on the essential inquiry under US merger analysis, the effects on consumers: "We would not want to interfere with this development even if it made life very uncomfortable for competitors..."

Pacific/Enova²⁸

In 1998, the Department of Justice challenged the merger of Pacific Enterprises, one of three major electric utilities in California, and Enova Corporation, which had a monopoly over natural gas transportation and storage services in Southern California. Enova supplied natural gas to Pacific's and its competitors' natural gas fired plants. These plants were used mostly during periods of high electricity demand because they were more expensive to run than plants using other fuels; but during these high demand periods, the plants set the price of electricity.

See In re Synopsys, Inc./Avant! Corporation, Statements of FTC Commissioners Sheila F. Anthony, Mozelle W. Thompson and Thomas B. Leary File No., File No. 021-0049 (FTC, July 26, 2002), available at http://www.ftc.gov/os/caselist/0210049.htm.

Statement of Thomas B. Leary, *supra* note 26.

United States v. Enova Corp.,107 F. Supp 2d 10 (DDC 2000); see also United States v. Enova Competitive Impact Statement, Civ. Action No. 98-CV-583 (D.D.C. filed June 8, 1998), available at http://www.usdoj.gov/atr/cases/f1700/1789.htm.

The Justice Department alleged that absent the merger, Pacific would have little incentive to restrict the supply of gas to plants because it would not benefit from higher electricity prices. If Pacific and Enova combined, however, the merged company would have both the ability and the incentive to limit the supply of natural gas to competing gas-fired plants, thereby increasing the cost of operating gas-fired plants and, in turn, raising the price of electricity to California consumers during periods of high demand.

The Justice Department and the parties settled the case, with the parties agreeing to divest Enova's two gas-fired power plants, and to seek Department approval before acquiring any new gas-fired plants.²⁹

Premdor/Masonite³⁰

In 2001, the Justice Department challenged the proposed acquisition of Masonite, one of the two major producers of "interior molded doorskins" (doorskins) by Premdor, Inc, one of the two major producers of "interior molded doors" (doors) and a minor producer of doorskins.

Doorskins are the principal component of doors, and Premdor was Masonite's largest customer.

The Department alleged that doorskins and doors were separate markets, and in each market Premdor's and Masonite's only major competitor was vertically integrated into both doorskins and doors.

The Department challenged the transaction based on theories somewhat different than those underlying most of the agencies' vertical cases. It alleged that the proposed vertical integration would facilitate price coordination with the existing vertically integrated firm at both

United States v. Enova Competitive Impact Statement, Civ. Action No. 98-CV-583 (D.D.C. filed June 8, 1998), available at http://www.usdoj.gov/atr/cases/f1700/1789.htm.

United States v. Premdor, Competitive Impact Statement, Civ. Action No. 1:01CV01696 (D.D.C. filed Aug. 3, 2001) available at http://www.usdoj.gov/atr/cases/f9000/9017.htm.

levels of the supply chain, by eliminating factors that had theretofore impeded coordination.

First, before the merger, any attempt by Masonite and its competitor jointly to raise the price of doorskins ran the risk of spurring Premdor to expand its production of doorskins both for its own use and for the use of other door manufacturers. Second, absent the merger, Masonite had the ability and incentive to supply doorskins on favorable terms to Premdor's smaller door rivals to prevent Premdor and its vertically integrated competitor from coordinating prices on finished doors; this was because such coordination would restrict door output and thereby reduce demand for Masonite's doorskins. Post-merger, however, the vertically-integrated, combined firm would no longer have incentives to help its smaller door rivals expand output. Third, Masonite and Premdor's pre-merger cost structures and information bases were quite different from those of the vertically integrated competitor, thus making price coordination more difficult. The merger would have eliminated those differences.

The Department's concerns were resolved through a package of divestitures designed to establish another competitor in the doorskin market.³¹

Barnes & Noble/Ingram³²

In 1999, Barnes and Noble, Inc., the largest book retailer in the United States, abandoned its attempt to acquire Ingram Book Group, the largest wholesaler of books, after it became clear that the FTC planned to seek an injunction to stop the transaction. The FTC worried that, once Barnes and Noble acquired Ingram, it would be able to raise the costs that Ingram charged to supply books to Barnes and Noble's retail competitors, or to decrease the services that it offered

³¹ *Id.*

See Richard Parker, *Global Merger Enforcement*, remarks before the International Bar Association, Sept. 28, 1999.

to them. By impeding rivals in the downstream retail market, the FTC posited, Barnes and Noble would be able to capture monopoly rents there.

Defense Industry Cases:

The end of the cold war brought about substantial consolidation in the defense industry. The views of the US Department of Defense, often the only major US purchaser of defense products, heavily influenced the course of the antitrust review of these transactions. Because some of the mergers involved a traditional "prime" contractor and traditional subcontractors, there were concerns that the integrated firm might have financial incentives to violate its prime contractor obligations by favoring the newly acquired subcontractor.³³ Alternatively, the combined company could disadvantage other prime contractors by causing its subcontracting arm to refuse to supply competing prime contractors or refuse to supply on favorable terms.³⁴ In addition, the defense cases sometimes involve concerns about anticompetitive transfers of information about rivals that may result when a merged firm operates at both the prime and subcontractor levels.

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See, e.g., United States v. Northrop Grumman Corp., Competitive Impact Statement (2002), available at http://www.usdoj.gov/atr/cases/f200500/200555.htm; and see United States v, Lockheed Martin Corp. (D.D.C. filed Mar., 1998), available at http://www.usdoj.gov/atr/cases/f212600/212680.htm ("The DoD relies upon prime contractors to act as neutral brokers in selecting the best system and subsystem solutions to achieve the mission objective of the platform or integrated electronics system for which the prime contractor is responsible.")

See, e.g., Complaint, United States v. Lockheed Martin Corp. & Northrop Grumman Corp. (D.D.C. 1998), para.105, available at http://www.usdoj.gov/atr/cases/f212600/212680.htm.

The most recent example was the acquisition of TRW, Inc. by Northrop Grumman

Corp.³⁵ TRW was one of two suppliers of certain payloads for reconnaissance satellite systems; and Northrop was one of the few companies able to serve as prime contractor for such satellites.

The Department of Justice alleged that the merger would give Northrop the incentive "and ability to lessen competition by favoring its in-house payload and/or prime contractor capabilities to the detriment or foreclosure of competitors, and/or by refusing to sell, or selling only at disadvantageous terms, its in-house capabilities to competitors." The Department's challenge was resolved through a consent order imposing behavioral remedies. The order prohibited Northrop from using its primary contractor status to discriminate in favor of TRW and provided for Department of Defense oversight of subcontracting decisions. The order also included information firewall provisions designed to ensure that the merged firm's satellite prime contracting business would not transmit to its payload business information about payload rivals; and, conversely, that its payload business would not transmit to its prime contracting business information about prime contracting rivals.³⁷

Conclusion

Given the diffusion of views about how often and under what circumstances vertical mergers may raise competitive concerns, it is not surprising that the agencies have been unsuccessful in establishing guidelines for vertical mergers that reflect consensus and provide

United States v. Northrop Grumman Corp., Competitive Impact Statement (2002), available at http://www.usdoj.gov/atr/cases/f200500/200555.htm

³⁶ *Id.*

Id.; see also In re Alliant Techsystems, Inc., 119 F.T.C. 440 (1995); In re Hughes Danbury Optical Sys., Inc., 121 F.T.C. 495 (1996); In re Raytheon Co., 122 F.T.C. 94 (1996).

predictability. The absence of well-accepted guidelines, and the relative dearth of agency challenges make it difficult to predict the agencies' reaction to a transaction that may raise vertical concerns. Given their complexity and intensely fact-specific nature, vertical mergers do not seem to lend themselves particularly well to the sort of generalized models and guidelines that have helped to establish relative concensus about the analysis of horizontal mergers.

Nevertheless, continued attention to the subject by enforcers, academics, and others may help to bring about more consensus and a more predictable enforcement policy in this area.

Abstract

There is broad consensus in the United States about the basic framework for evaluating horizontal mergers between competitors. The standards for evaluating vertical mergers involving firms at different levels of the supply chain are far murkier. Though there is general agreement that vertical mergers typically raise fewer competitive concerns than horizontal ones, there is much less agreement about the analytical standards that should apply to the competitive analysis. The uncertainty is compounded by the scarcity of judicial authority, well-accepted guidelines, or agency enforcement actions. In this article, we briefly summarize the history of litigated cases and agency guidelines in the area. We then survey the antitrust enforcement agencies' most recent challenges to vertical mergers and describe some general themes that emerge from the agencies' actions.

Key words

vertical, merger, guidelines, "consumer harm," Premdor, Cytyc, Synopsys, Enova, Ingram, "Northrop Grumman," "defense industry"