VERTICAL MERGERS AND COORDINATED EFFECTS: IMPLICATIONS FOR MERGER POLICY

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By Margaret C. Levenstein & Valerie Y. Suslow

Vertical relationships can have coordinated effects with important implications for planned revisions of the U.S. Department of Justice merger guidelines. Despite increased efforts to prosecute explicit collusion, increased fines, and the use of creative detection and enforcement techniques, firms continue to engage in explicit collusion, harming consumers, competitors, and economic dynamism. Firms engage in a wide variety of behaviors to prevent cheating or entry from disrupting collusion. In some cases, those behaviors include mergers. Vertical mergers can expand the scope for monitoring, coordination, punishment, and exclusion on the part of horizontally colluding firms. The very high horizontal concentration levels observed in markets with explicit collusion also suggests that the merger guidelines address such patterns of market dominance.

In this comment we discuss the role that vertical relationships have in coordinated effects and the implications for any revisions of the U.S. Department of Justice merger guidelines. We highlight empirical evidence in support of our recommendation that the merger guidelines provide for review of mergers of vertically connected firms with the risk of coordinated effects in mind.

Our research has shown that, despite increased efforts to prosecute explicit collusion, increased fines, and the use of creative detection and enforcement techniques, firms continue to engage in explicit collusion, harming consumers, competitors, and economic dynamism.[2] Further, our empirical research has shown that the two most important challenges to cartels are cheating and entry.[3] Firms engage in a wide variety of behaviors to prevent cheating or entry from disrupting collusion. In some cases, those behaviors include mergers.

Here we focus in particular on the role that vertical mergers have played in expanding the scope for monitoring, coordination, punishment, and exclusion on the part of horizontally colluding firms. We also note the very high horizontal concentration levels observed in markets with explicit collusion and urge that the merger guidelines be updated to address the emergence of such patterns of market dominance.[4]

In our sample of 81 international cartels, determined by the European Commission ("EC") or the U.S. Department of Justice to have engaged in horizontal price fixing between 1990 and 2007, we found that in a quarter of the cartels, vertical relationships were a feature of the collusive arrangement.[5] Antitrust authorities documented these vertical relationships in passing, as they are not central to the legal definitions of collusion; it is thus likely that 25 percent is an underestimate of the frequency with which cartels use vertical relationships to sustain collusion. In a subsequent study, examining cartels in (English speaking) jurisdictions around the world, we identified multiple examples of cartels using vertical relationships or vertical restraints to monitor and enforce collusion.[6] Cartels using vertical relationships occurred in a variety of industries, including consumer goods, such as chocolate and bicycles, and intermediate goods, such as chemicals and graphite products.

Focusing on the potential use of vertical restraints to support collusion seems to fly in the face of long-established economic theory demonstrating that vertical restraints can benefit consumers.[7] This research led to a presumption of efficiency benefits from vertical mergers. However, subsequent theoretical modeling has demonstrated that vertical mergers and vertical restraints can facilitate collusion, even when one might otherwise expect that vertically connected firms would have an incentive to disrupt collusion.[8]

Our studies of explicit collusion demonstrate that this is not simply a theoretical possibility. Cartels can and do use vertical relationships, including using vertical acquisitions, to help monitor collusive agreements and create barriers to entry. Cartels almost always engage in some sort of monitoring to reduce the incentive for participants to cheat.[9] Downstream firms may observe sales and be able to make them visible to a cartel. Thus, the inclusion of downstream firms in a collusive conspiracy can reduce the incentive for cartel members to cheat. For vertically integrated firms, sales managers often play this role. Where cartel members rely on vertically separate distributors, achieving this functionality can be difficult. Thus, a vertical merger provides a cartel with more readily accessible information to monitor compliance with a collusive agreement.

A successful, profitable cartel will naturally lead to new entry or the expansion of fringe firms. Cartel stability requires that entry or fringe expansion be controlled.[10] Cartels use vertical relationships to create barriers to entry in two ways. First, in many cases, downstream firms have

2 See, e.g. Margaret C. Levenstein & Valerie Y. Suslow, What Determines Cartel Success?, 44 J. ECON. LITERATURE 43, 57 (2006); Margaret C. Levenstein & Valerie Y. Suslow, Breaking Up Is Hard to Do: Determinants of Cartel Duration, 54 J.L. & ECON. 455, 460–61, 474 (2011) Margaret C. Levenstein & Valerie Y. Suslow, Price Fixing Hits Home: An Empirical Study of US Price-Fixing Conspiracies,48 REVIEW OF INDUSTRIAL ORG 361-379 (2016)

3 Levenstein & Suslow, *supra* note 2 (2011).

4 Levenstein & Suslow, *supra* note 2 (2011), find that two-thirds of the cartels in the study were in an industry with a four-firm concentration ratio of 75 percent or more (p. 470).

5 Margaret C. Levenstein & Valerie Y. Suslow, How Do Cartels Use Vertical Restraints? Reflections on Bork's The Antitrust Paradox, 57 J.L. & ECON. S33, S41–42 (2014).

6 Margaret C. Levenstein & Valerie Y. Suslow, How Do Cartels Use Vertical Restraints? Horizontal and Vertical Working in Tandem, Antitrust L. J. 83, 15-40.

7 ROBERT H. BORK, THE ANTITRUST PARADOX: A POLICY AT WAR WITH ITSELF 288–91 (The Free Press 1993) (1978). Lester G. Telser, Why Should Manufacturers Want Fair Trade?, 3 J.L. & ECON. 86, 89–93 (1960).). Economic research has demonstrated these benefits empirically (Francine Lafontaine & Margaret Slade, Exclusive Contracts and Vertical Restraints: Empirical Evidence and Public Policy, in HANDBOOK OF ANTITRUST ECONOMICS 391, 392–97 (Paolo Buccirossi ed., MIT Press 2008); Francine Lafontaine & Margaret Slade, Vertical Integration and Firm Boundaries: The Evidence, 45 J. ECON. LITERATURE 629, 677–80 (2007).

8 See, e.g. John Asker & Heski Bar-Isaac, Raising Retailers' Profits: On Vertical Practices and the Exclusion of Rivals, 104 AM. ECON. REV. 672 (2014); B. Douglas Bernheim & Michael D. Whinston, Common Marketing Agency as a Device for Facilitating Collusion, 16 RAND J. ECON. 269 (1985); Patrick Rey & Jean Tirole, The Logic of Vertical Restraints, 76 AM. ECON. REV. 921 (1986).

9 See, e.g. *supra* note 2 Levenstein & Suslow (2006).

10 *Supra* note 2 Levenstein & Suslow (2011) at 470–73.

access to and control information regarding brand reputation, and relationships with customers, and, more broadly, distribution channels. In this case, cartels of upstream firms can collaborate with downstream firms, sharing rents from the restriction of output. In return, the downstream firms use their information and relationships to foreclose entry from potential upstream competitors. Second, relationships between upstream and downstream firms can prohibit downstream firms from contracting with alternative suppliers. Threats of boycotts or refusals to deal can corral recalcitrant firms into colluding. Mergers between upstream and downstream firms, especially where the downstream firms have a brand reputation, a relationship with customers, or a much broader scope of products (i.e. a full product line) can create barriers to entry that facilitate collusion.

For example, in the haberdashery products cartel, a downstream distributor (Coats) and a vertically integrated producer (Prym) colluded, using the distributors' reputations with customers to prevent entry/expansion by a non-vertically integrated producer (Entaco).[11] Entaco's access to UK customers was made conditional on accepting geographic and product diversification restrictions established by Coats and Prym. Coats and Prym distributed one another's products, a frequent device used for balancing cartel quotas, and limited Entaco's ability to compete and innovate by limiting Entaco's direct contact with customers.

The specialty graphites cartel also used distributors to monitor sales, making visible transactions, and discouraging cheating that might otherwise limit a cartel's ability to raise price. According to the European Commission, vertically integrated firms were more successful in this regard: "In this respect, it should be recalled that SGL and LCL sold most of their graphite products via subsidiaries in Europe. As a result, they were able to control the price to the end users. On the other hand, producers like Ibiden and Tokai sold via independent distributors and machine shops and did not have detailed knowledge of the end users prices charged by these distributors or machine shops, nor were they able to control these prices."[12]

There are also cartels in which the cartel members acquired downstream firms to facilitate collusion. For example, in both the electrical and mechanical carbon and the cement cartels, vertical mergers along their supply chains were undertaken specifically to control recalcitrant, non-vertically integrated firms.[13] In a case still under investigation, it has been alleged that a Norwegian salmon producer (Mowi) acquired a downstream firm (Morpol) just prior to establishing a new cartel that used the distributor to manipulate the NASDAQ salmon index with the goal of increasing salmon prices.[14] Many of these examples are European, because the EC makes public more narrative information about the nature of collusion as part of its decision, but there is no reason to believe that these behaviors or relationships are not also occurring in the United States.

The existing U.S. vertical merger guidelines presume the irrelevance of concentration levels. When one considers the role of vertical mergers in facilitating collusion, concentration appears to be quite relevant in determining whether a merger is pro or anti-competitive. For example, if a proposed vertical merger involves an upstream producer in a highly concentrated industry and a downstream distributor in an unconcentrated industry, there might still be concern that the merger would facilitate collusion in the upstream industry, because of the role of the downstream distributor in monitoring the market (as discussed above). Analogously, if the downstream market is concentrated and downstream distributors have a brand recognition or other mechanism that limits entry, a vertical merger could allow them to maintain otherwise unsustainable collusion.

In general, the current U.S. vertical merger guidelines consider the potential for vertical mergers to facilitate dominance or unilateral effects, but do not explicitly consider their potential to support collusion or coordinated effects. We recommend that any guidelines for vertical mergers (whether separate or not from the guidelines for horizontal mergers) explicitly consider such risks. For example, foreclosure is an important device used by cartels to maintain their control of markets. Foreclosure or boycotts can be used to enforce participation in a cartel or punish deviations. Foreclosure can also limit access to markets by potential entrants; in some cases, cartels explicitly excluded entrants from market access through their ownership, control, or collaboration with vertically connected firms. Similarly, access to competitively sensitive information, may facilitate the monitoring necessary to sustain collusion.

11 See Case COMP F-1/38.338—*PO/Needles*, Comm'n Decision, ¶ 61 (Oct. 26, 2004) (summary at 2009 O.J. (C147) 23), ec.europa.eu/competition/antitrust/cases/dec_docs/38338/38338_332_1.pdf.

12 Case COMP/E-2/37.667—Specialty Graphite, Comm'n Decision, ¶¶ 43, 48, 53, 64 (Dec. 17, 2002) (summary at 2006 O.J. (L180) 20), ec.europa.eu/competition/antitrust/cases/dec_docs/37667/37667_86_1.pdf, par 192.

13 Case C.38.359: Electrical and Mechanical Carbon and Graphite Products], par. 157, and Commission Decision of November 30, 1994 [Cases I V/ 33. 126 and 33. 322: Cement], 56.

14 See paragraph 27 of "In Re: Farm-Raised Salmon and Salmon Products Antitrust Litigation, 2nd Consolidated Amended Direct Purchaser Class Action Complaint" filed in US District Court Southern District of Florida, Miami Division, October 16, 2020.

The current horizontal merger guidelines consider historical events that are informative about competitive effects of a potential merger. We recommend that competition agencies consider prior evidence of collusion as an important historical event that is informative about the likelihood that a merger would have anti-competitive effects. Some research shows that prior experience with collusion itself increases the effectiveness of collusion in the future, including tacit collusion.[15] Prior experience with collusion also suggests that industry participants see potential profits from reducing competition, and prior collusion should be treated as creating an a priori assumption that such is the primary goal of a merger. For example, Davies et al. (2015) analyzes a set of EU cartels and concludes that "there is typically a period of increased merger activity among the former cartelists" (p. 581).[16] Similarly, Hüschelrath & Smuda (2013) found that "the average number of all merger transactions increase by up to 51 percent when comparing the three years before the cartel breakdowns with the three years afterwards… for the subset of horizontal mergers, merger activity is found to increase even more — by up to 83 percent — after the cartel breakdowns" (p. 408).[17] Permitting mergers among co-conspirators undermines competition and the impact of anti-cartel policy interventions.

The current horizontal merger guidelines note that it is particularly important not to permit acquisition of firms that have been recalcitrant, or even disruptive, participants in tacit or explicit collusion. There are cases where cartels strategically acquired such maverick firms to stabilize a secret cartel. For example, "the organic peroxide producers 'agreed that each of them would purchase [a] competitor. Akzo agreed to acquire . . . Nobel and Enichem Laporte would purchase Aztec.'"[18] Being attentive to industry dynamics, particularly any history of collusion in the industry or among industry participants – even in other markets – is particularly important to avoid the possibility of acquisitions that facilitate collusion.

The general focus and tone of the existing merger guidelines suggests that there is much greater risk of unilateral than coordinated effects and that vertical relationships are unlikely to affect the ability of firms to collude. The broad increase in concentration across many markets has made this presumption less tenable. Amnesty and high fines for price fixing have been in place for a quarter century. We continue to discover explicit secret collusion. Explicit collusion is a real threat, and the profits associated with collusion continue to be high enough that firms have an incentive to engage in legally risky coordinated behavior. Merger review should make sure to consider the potential that a merger would facilitate collusion for both vertical and horizontal mergers.

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15 See *supra* note 2 Levenstein & Suslow (2006), especially pp. 69-73. For examples of path dependence of collusive success in particular markets, see Barbara J. Alexander (1994) "The Impact of the National Industrial Recovery Act on Cartel Formation and Maintenance Costs." *Review of Economics and Statistics*, 76(2): 245–54 or Debora L. Spar (1994) *The Cooperative Edge: The Internal Politics of International Cartels*. Ithaca: Cornell University Press.

16 Stephen Davies, Peter Ormosi & Martin Graffenberger. Mergers after Cartels: How Markets React to Cartel Breakdown. *Journal of Law and Economics*, vol. 58 (August 2015), 561-583.

17 Kai Hüschelrath & Florian Smuda. Do Cartel Breakdowns Induce Mergers? Evidence from EC Cartel Cases," *European Competition Journal*, 9:2 (May 2013), 407-429,

18 See European Commission Decision of December 10, 2003 [Case COMP/E-2/37.857: Organic Peroxides], par. 271, quoted in Levenstein & Suslow *supra* note 2, p. 472.

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