HOW DO CARTELS USE VERTICAL RESTRAINTS? HORIZONTAL AND VERTICAL WORKING IN TANDEM

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This symposium was motivated by a concern that vertical restraints dampen competition in a world with otherwise reasonably effective anti-cartel policies because cartels make more frequent use of vertical restraints than has generally been recognized. Our examination of explicit horizontal European Commission cartel cases from the 1990s found that a surprisingly large fraction (one quarter) of cartels were making use of vertical relationships to sustain, and sometimes to disguise, their collusive behavior.[1] The European Commission was not specifically searching for evidence of vertical restraints, as documenting such behavior was not necessary to make the legal case of a violation of competition rules against horizontal price fixing or market allocation. Rather, in the process of describing the organization and functioning of each cartel, the European Commission documented the use of vertical restraints.

It is impossible to know how common these cases are because there has been no systematic collection of information on these kinds of activities, even where illegal horizontal collusion has been discovered. European competition authorities are increasingly reluctant to share details of investigations, in part

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[1] We found that in a quarter of 81 international cartels, determined by the European Commission or the U.S. Department of Justice to have engaged in horizontal price fixing between 1990 and 2007, vertical relationships were a feature of the collusive arrangement. 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). Note that in some but not all cases these vertical relationships include classic vertical restraints. Our argument is thus similar to the claim by Elizabeth Granitz and Benjamin Klein that "a vertical relationship can facilitate the creation of monopoly power." Elizabeth Granitz & Benjamin Klein, *Monopolization by "Raising Rivals' Costs": The* Standard Oil *Case*, 39 J.L. & ECON. 1, 3 (1996).

because of the increased risk of individual, personal liability for anticompetitive practices, the increased risk of civil liability for firms, and sequential or differential implementation of leniency across jurisdictions. These risks may create incentives to reduce horizontal collusion, but an unintended consequence of the European competition authorities' lack of transparency is to make the organization and mechanisms of anticompetitive behavior arising from other kinds of behavior, such as vertical restraints, more obscure.

Does the finding—that one-quarter of a sample of international cartels in the 1990s and early 2000s showed evidence of vertical relationships that support collusion—suggest that this occurs in different countries and across legal regimes? Unfortunately, the information required to establish this is not clear. We examined the records of horizontal collusion cases from six different (English-speaking) jurisdictions: Australia, Canada, Ireland, South Africa, United Kingdom, and United States. The descriptions of the cases were too limited to discern whether vertical restraints were used by cartel members to support horizontal collusion. There were suggestions of vertical restraints in a few cases, which we discuss below, but publicly available evidence was largely non-existent.

Observers often miss the role of vertical relationships because both the economic and legal frameworks encourage us to characterize interfirm relationships as either horizontal *or* vertical. In this article we note that horizontal and vertical relationships often work in tandem to enable anticompetitive behavior and reduce efficiency. Downstream firms may help to prevent cheating and entry or assist firms in coordinating their behavior on a collusive outcome. Downstream firms receive a share of collusive rents in return for these activities. Robert Bork famously and influentially argued that vertical restraints should be per se legal, because, as mutually agreed upon, voluntary contracts, they could not harm consumers or competition.[2] A number of writers, including some of the contributors to this volume, have demonstrated that this is not the case theoretically or empirically. Vertical restraints are not always innocuous; sometimes they are being used to facilitate collusion.

This article focuses, through discussion of a series of cartel case studies, on the ways that distributors may facilitate collusion. We choose this focus not because we think that distributors are more likely to facilitate than undermine collusion, but rather because antitrust policy does not need to change to address cases where distributors undermine collusion. When distributors make it easier for firms to cheat on collusive arrangement or play upstream firms against one another, consumers benefit; competition policy's laissez-faire atti-

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[2] ROBERT H. BORK, THE ANTITRUST PARADOX: A POLICY AT WAR WITH ITSELF 288–91 (The Free Press 1993) (1978).

tude toward vertical relationships is vindicated. Policy intervention is necessary, however, when the market does not automatically move the economy toward an efficient outcome. Distributors' potential involvement in collusion is such a case. The possibility that distributors are participating in horizontal collusion requires awareness by policymakers and a change in antitrust policy to address it.

Some of the detailed case studies of cartels using vertical restraints that we highlight in this article are from periods where antitrust laws did not exist or in countries where they are nascent. Only in these settings could one can amass detailed evidence to show how vertical restraints were used to support horizontal collusion. In the current era, empirical measures of the prevalence of how horizontal and vertical restraints work in tandem is generally not available. There was, however, a span of years in the 1990s and early 2000s when the European Commission was providing detailed and publicly available cartel decisions. In these published decisions, the European Commission documented cartel organizational mechanisms in sufficient detail to reveal the continued existence of these behaviors and arrangements. Thus, these decisions give us some insight into how vertical restraints can be used to support a dampening of competition.

I. RELATED ECONOMIC LITERATURE

Seminal work by Robert Bork and Lester Telser established that vertical restrictions could benefit consumers, even when appearances seemed to imply the contrary.[3] For example, individual retailers might resent restrictions on their ability to market their wares in other regions or at lower prices, but contracts with minimum resale pricing or exclusive territories could improve the marketing and after-sale services received by consumers that retailers might not otherwise have an incentive to provide.[4] Francine Lafontaine and Margaret Slade have demonstrated the pervasiveness of efficiency-enhancing vertical relationships.[5] Alfred Chandler and business historians influenced by his writings have argued that the information that vertically integrated firms received from downstream units allowed for better coordination of upstream production activities and more responsive innovation.[6] Lastly, the ability of

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[3] *Id.*; Lester G. Telser, *Why Should Manufacturers Want Fair Trade?*, 3 J.L. & ECON. 86, 89–93 (1960).

[4] Telser, *supra* note 3, at 92–93.

[5] 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., 2008); Francine Lafontaine & Margaret Slade, *Vertical Integration and Firm Boundaries: The Evidence*, 45 J. ECON. LITERATURE 629, 677–80 (2007).

[6] ALFRED D. CHANDLER, JR., STRATEGY AND STRUCTURE: CHAPTERS IN THE HISTORY OF THE INDUSTRIAL ENTERPRISE 1–21 (Anchor Books 1966) (1962); ALFRED D. CHANDLER, JR., THE VISIBLE HAND: THE MANAGERIAL REVOLUTION IN AMERICAN BUSINESS 363–72 (1977); GLENN

firms to coordinate activities across vertical relationships was key to productivity and economic growth throughout the 20th century. Drawing on Ronald Coase, Oliver Williamson argued that vertical integration and vertical contracts should be seen on a spectrum, as ways that firms manage relationships across the supply chain when markets are not complete and contractual enforcement is not costless.[7] This foundational transactions costs literature focuses on firms choosing whether to use vertical contracts or vertical integration to organize economic activity. Such research by legal, economic, and historical scholars has provided the basis for more accommodative treatment of vertical relationships relative to horizontal ones by U.S. courts.

A separate strand of largely theoretical literature has demonstrated that vertical restraints can also support anticompetitive outcomes.[8] Some of this theoretical work was motivated by fairly explicit anticompetitive behavior in the 20th century (e.g., joint sales agencies representing international cartels that shaped world trade in the inter-war period).[9] In other cases, it is motivated by the increasing market power of retail chains or online platforms to direct customers to particular upstream producers.[10]

PORTER & HAROLD C. LIVESAY, MERCHANTS AND MANUFACTURERS: STUDIES IN THE CHANGING STRUCTURE OF NINETEENTH-CENTURY MARKETING 5–10 (1971).

7 OLIVER E. WILLIAMSON, MARKETS AND HIERARCHIES: ANALYSIS AND ANTITRUST IMPLICATIONS 83–84 (1975); OLIVER E. WILLIAMSON, THE ECONOMIC INSTITUTIONS OF CAPITALISM: FIRMS, MARKETS, RELATIONAL CONTRACTING 85–102 (1987); R.H. Coase, *The Nature of the Firm*, 4 ECONOMICA 386, 390–92 (1937).

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); D. 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 Valerie Y. Suslow, *Cartel Contract Duration: Empirical Evidence from Inter-war International Cartels*, 14 INDUS. & CORP. CHANGE 705, 714–16 (2005).

10 Most of the economic analysis in this area focuses on individual firms or markets. There has been relatively little analysis that examines a general equilibrium approach to market power across the supply chain. Glenn Porter and Harold Livesay's *Merchants and Manufacturers*, a history of the relationship along the supply chain, argues that prior to the U.S. Civil War, merchants had information about customer needs and access to capital. PORTER & LIVESAY, *supra* note 6, at 5–10. They provided credit to manufacturers and directed their production. *Id.* at 8. The inflation of the Civil War and the development of the National Banking system, as Porter and Livesay argued, gave manufacturers access to credit that shifted the balance of power between manufacturers and distributors. *Id.* at 10–12. The rise of the vertically integrated firm in the 20th century, documented by Alfred Chandler in *The Visible Hand*, gave manufacturers information about customers; previously, manufacturers had to pay distributors for such information. CHANDLER, THE VISIBLE HAND, *supra* note 6, at 363–72. In the 21st century, the increased ability to process and make use of electronic transactions to manage inventories and customer preferences, has given large retail chains (e.g., Walmart) and online platforms (e.g., Amazon) more market power relative to manufacturers. These changes in the overall industrial and economic structure undoubtedly influence the kinds of anticompetitive behavior we see in different periods.

II. IDEAL TYPES OF VERTICAL INTERACTION THAT DAMPEN COMPETITION

In this Part, we characterize vertical relationships that we have observed when examining cartel cases. These characterizations are idealized representations of such relationships and their functions in support of collusion. We distinguish three "ideal types." In the first type, upstream and downstream firms collaborate to facilitate collusion, sharing rents. In the second and third more familiar types, the impetus for collusion rests in either the upstream or downstream firms. They engage in coercive behavior toward firms in the vertical chain to support horizontal collusion.[11] We recognize that in any individual cartel case there are many different kinds of behavior. A given cartel may exhibit a combination of these ideal types, and may move through different types over time. Still, distinguishing these ideal types provides a useful taxonomy for analysis of the empirical evidence.

A. TYPE A: UPSTREAM AND DOWNSTREAM FIRMS COLLABORATE TO FACILITATE COLLUSION

Our research, and that of others, has identified cheating and entry as the primary challenges to cartel stability.[12] In some cases, where the industry and information structure—and individual firm management—are amenable, cartels make use of vertical relationships to address both of these challenges.[13] For example, uncertainty about demand makes cheating easier and can undermine collusion. Where demand uncertainty is a serious problem for the cartel, perhaps because upstream producers cannot observe one another's actions, cartels try to prevent cheating by reducing uncertainty about demand.[14] Monitoring competitors is a common technique for doing so. Articles by George Stigler and by Edward Green and Robert Porter focus on the role that limited information plays in encouraging cheating and limiting the exercise of market

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[11] Douglas Bernheim and Michael Whinston characterize a different type of vertical contract that leads to an equilibrium in which the collusive output is produced. In their model, a vertical contract changes the incentives of the upstream firm, so that each upstream firm wants to produce the collusive level of output. Bernheim & Whinston, *supra* note 8, at 277–79. Downstream firms receive no rents. *Id.* at 272–73. We do not see examples of such contracts in our review of EC cartel cases and thus have not included this as an ideal type. It may be that where such contracts exist, tacit collusion is successful; we do not observe this behavior because it is not prosecuted as illegal collusion.

[12] *See, e.g.*, Margaret C. Levenstein & Valerie Y. Suslow, *What Determines Cartel Success?*, 44 J. ECON. LITERATURE 43, 57 (2006).

[13] *See infra* Figure 1.

[14] Cartels may also punish cheating, when it is detected or likely to have occurred based on observables, but they would rather reduce uncertainty, reducing the need for profit-reducing punishments.

power.[15] Nearly every cartel indictment indicates that cartel members monitored one another. Although this is commonplace and expected by competition authorities and courts, such policymakers may not realize that assistance in monitoring is sometimes provided by vertically connected partners. Downstream firms may have more information about demand and can reduce uncertainty. For example, downstream firms observe sales and may be in a position 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.

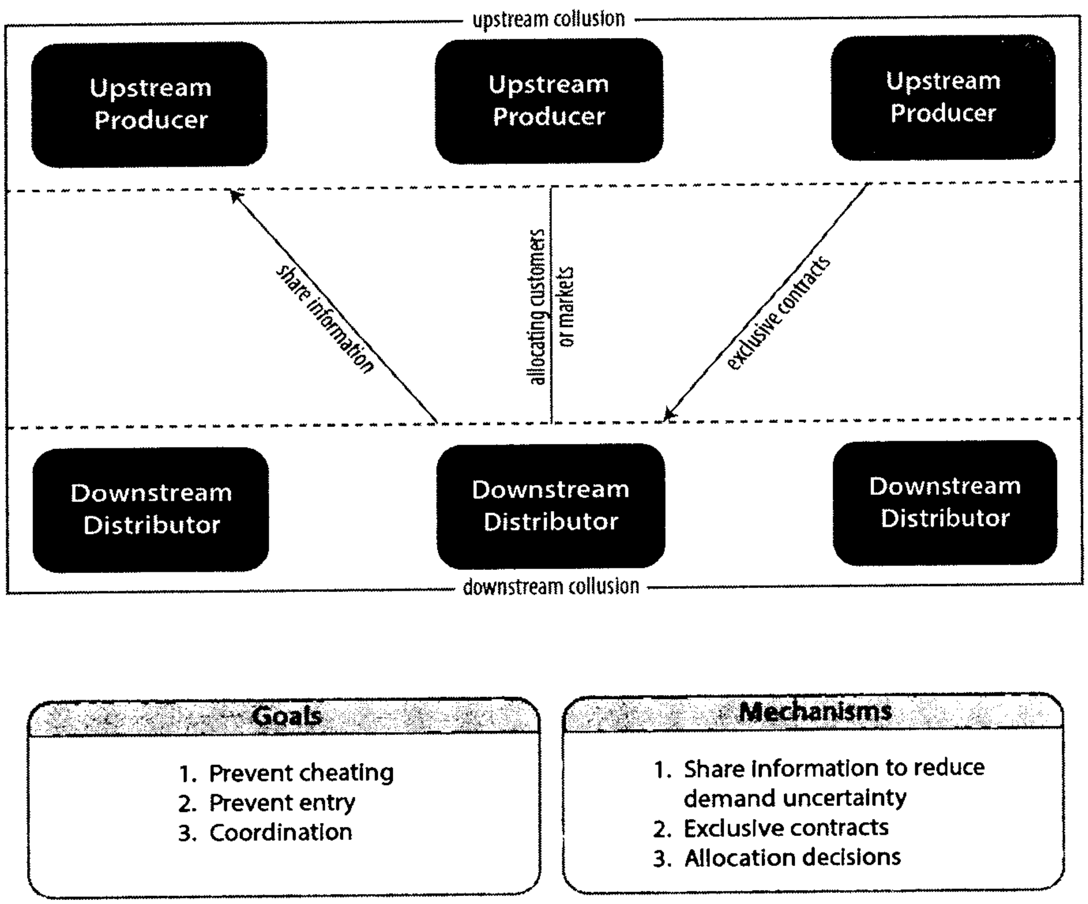

FIGURE 1
TYPE A: UPSTREAM AND DOWNSTREAM FIRMS COLLABORATE TO FACILITATE COLLUSION

For vertically integrated firms, sales managers often play this role. Where cartel members rely on vertically separate distributors, achieving this functionality is harder. Where they cannot give direct instructions to employees,

[15] Edward J. Green & Robert H. Porter, *Noncooperative Collusion Under Imperfect Price Information*, 52 ECONOMETRICA 87 (1984); George J. Stigler, *A Theory of Oligopoly*, 72 J. POL. ECON. 44, 46–56 (1964).

firms may instead provide incentives for distributors to share this information. Note that this turns on its head Stigler's argument that customers have an incentive to take advantage of demand uncertainty to disrupt collusion and lower input costs.[16] We would expect, following Stigler, that competition and the search for profits would put firms in a vertical chain at odds with one another. Large, downstream firms are often in the best position to know that competition is being restricted and to maneuver to undermine such restrictions. In previous work, we have reported that while customers and distributors sometimes disrupt collusion, in other cases a share of the cartel rents can induce cooperation and information sharing by downstream firms.[17]

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.[18] As with reducing demand uncertainty, cartels use numerous mechanisms and strategies to deter entry. Especially where downstream firms have relationships with customers, their own brand reputation, or are taking advantage of economies of scope to offer a wide range of products from multiple producers, they may be in a position to foreclose access to customers from potential upstream competitors to the cartel. That is, in return for a share of cartel rents, downstream firms may be able and willing to play an active role in stabilizing a cartel by limiting access to customers by non-cartel producers. This is what John Asker and Scott Hemphill, elsewhere in this Symposium, call trading "exclusion for collusion."[19]

Vertical relationships can create barriers to entry in two ways. First, in many cases, brand reputation, information about and relationships with customers, and, more broadly, distribution channels belong to downstream firms. Cartels of upstream firms can collaborate with downstream firms, sharing rents from the restriction of output, if the downstream firms use their information and relationships to foreclose entry from potential upstream competitors. Second, contractual 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.

Finally, downstream firms can coordinate upstream behavior on particular collusive equilibria. It is by now well understood, from both theoretical and empirical work, that markets often have multiple potential collusive equilib-

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[16] Stigler, *supra* note 15, at 47–48.

[17] 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).

[18] *Id.* at 470–73.

[19] John Asker & C. Scott Hemphill, *A Study of Exclusionary Coalitions: The Canadian Sugar Coalition, 1888–1889*, *infra* this issue, 83 ANTITRUST L.J. 99, 100 (2020).

ria.[20] For example, different allocations of collusive profits or market shares may each represent a collusive equilibrium. In some industries, producers who have formed cartels will allocate output, customers, geographic regions, or market shares among themselves. In other industries, downstream firms may be helpful in coordinating upstream firm behavior on a particular collusive equilibria through their regular communication with multiple upstream producers who are deterred by competition law from communicating directly with one another. In yet other industries, distributors have information that allows them to make these allocation decisions more efficiently (from the cartel's perspective). For example, downstream brokers may allocate sales to individual producers or match producers and customers, using private information, so that maximal collusive rents are achieved. This is akin to Asker's description of knockout auctions where producers used secret preliminary auctions to get cartel participants to reveal who would be the most efficient supplier.[21] Similarly, exclusive territories or other market divisions between distributors may help to establish focal points or norms that coordinate activity on a collusive equilibrium.

B. TYPE B: VERTICAL COOPERATION TO PREVENT DOWNSTREAM COMPETITION FROM DISSIPATING CARTEL RENTS

A different but important challenge that colluding producers face when they use independent firms to market and distribute their output is that those downstream firms have an incentive to compete with one another.[22] Competition among distributors can put downward pressure on the rents generated by the upstream cartel. It is well understood that dominant firms have an incentive to create exclusive arrangements with distributors so that they can make use of multiple distributors without creating competition between them that would undermine their exercise of monopoly power. For example, a monopoly manufacturer at the national level might prefer to use independent local distributors to provide service and marketing activities to customers. However, neighboring distributors might compete with one another for customers. Thus, the national manufacturer imposes an exclusive territory for each distributor. A monopolist who wants to place a product in multiple retail establishments may impose a minimum retail price on the sale of its output so that all its distributors sell at its preferred (monopoly) price, allowing it to extract maximum rents without either inducing double markups or competition. Analo-

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[20] This point was formally proven in James W. Friedman, *A Non-cooperative Equilibrium for Supergames*, 38 REV. ECON. STUD. 1 (1971). Levenstein & Suslow, *supra* note 12, at 45 (providing support).

[21] John Asker, *A Study of the Internal Organization of a Bidding Cartel*, 100 AM. ECON. REV. 724, 727–28 (2010).

[22] *See infra* Figure 2.

gously, a cartel may prevent dissipation of its collective market power by distributors by stipulating to or encouraging the use of vertical restraints to prevent both intra-brand and inter-brand competition.

There are four common vertical mechanisms that cartels use to limit downstream competition: (1) joint sales agency, (2) exclusive markets (geography, customer, or product), (3) resale price maintenance, and (4) vertical integration. In the first mechanism, colluding producers may agree to sell all of their output through a joint sales agent. The agent, representing the entire industry, internalizes the cartel's incentives and charges the monopoly price. Organizing a cartel via a joint sales agency has several drawbacks, however. It is more obvious to competition authorities, it can disrupt longstanding and valuable relationships between manufacturers and distributors, and it may result in a loss of economies of scope. Alternatively, a cartel may assign distributors exclusive territories or some other market allocation mechanism (e.g., assigning particular customers to particular firms). Cartel members may instead establish a version of retail price maintenance, requiring their distributors to charge a price determined by the upstream colluders.

In the extreme, producers may vertically integrate, so that the distributors directly internalize the incentives faced by producers. Vertical integration allows for the alignment of incentives between upstream and downstream entities. There are many cases where vertically integrated firms explicitly engage managers in both upstream and downstream parts of the organization in the collusive enterprise. In a vertically integrated firm, the executives and managers from the organization communicate with one another directly, within the boundaries of the firm. Nevertheless, there are a number of cartels composed of firms which are not vertically integrated. These cartels often have elaborate organizational structures: top level executives from competing firms meet in one group and sales managers meet in another. In some cases, the sales managers meet separately and are given their own colorful group names to reflect their cartel role.[23] In a cartel where firms are not vertically integrated and instead rely on outside distributors, mimicking this kind of coordination requires cooperation between firms at different points along the supply chain. The "cooperation along the supply chain" in support of collusive behavior is what we see when vertically connected firms collude.

C. TYPE C: VERTICAL COOPERATION TO PREVENT UPSTREAM FIRMS FROM DISRUPTING A DOWNSTREAM CARTEL

When downstream firms collude, upstream producers may resist restrictions on sales necessary to achieve monopoly prices and search for alternative

[23] For examples of cartels with this type of elaborate operational hierarchy, see Levenstein & Suslow, *supra* note 12, at 72–74.

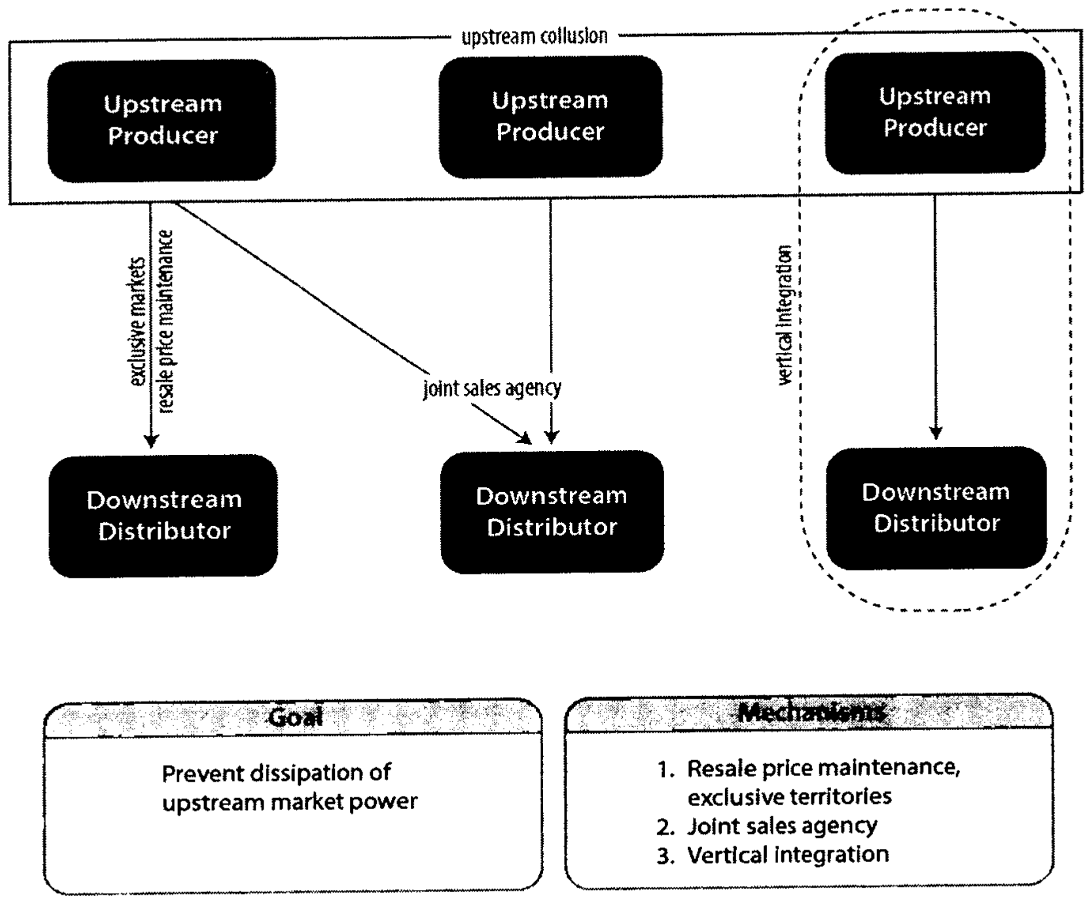

FIGURE 2
TYPE B: VERTICAL COOPERATION TO PREVENT DOWNSTREAM COMPETITION FROM DISSIPATING CARTEL RENTS

distribution channels. To mitigate this threat, and simultaneously to deter entry from potential downstream competitors, downstream cartels may use exclusive contracts and refusals to deal.[24] These contracts tie upstream firms to colluding distributors and punish them for attempts to use other distribution channels.

In much of the legal and economic literature, there is a presumption that cost minimization and competition mean that collusion in one part of the supply chain necessarily is at the expense of and opposed by other parts of the supply chain. For example, if upstream producers exercise market power and raise the price of their output, it increases the costs of downstream producers. If the downstream is perfectly competitive, this will necessitate an increase in the price of the final good and a concomitant reduction in demand.[25] In this

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[24] *See infra* Figure 3.

[25] For example, if upstream raw material producers collude to raise the price of an input, it will increase the marginal cost of production to the downstream manufacturer. This will, in turn,

article we present a contrasting narrative by illustrating that firms along the supply chain can align their interests to support increases in profits in the form of cartel rents. Downstream cartels may collude to lower input prices and extract monopsony rents; alternatively, they may share monopoly rents with upstream producers in return for exclusivity. Upstream firms may collude to raise prices paid (or reduce margins received) by distributors, or they may share monopoly rents in return for information, coordination, or stronger barriers to entry.

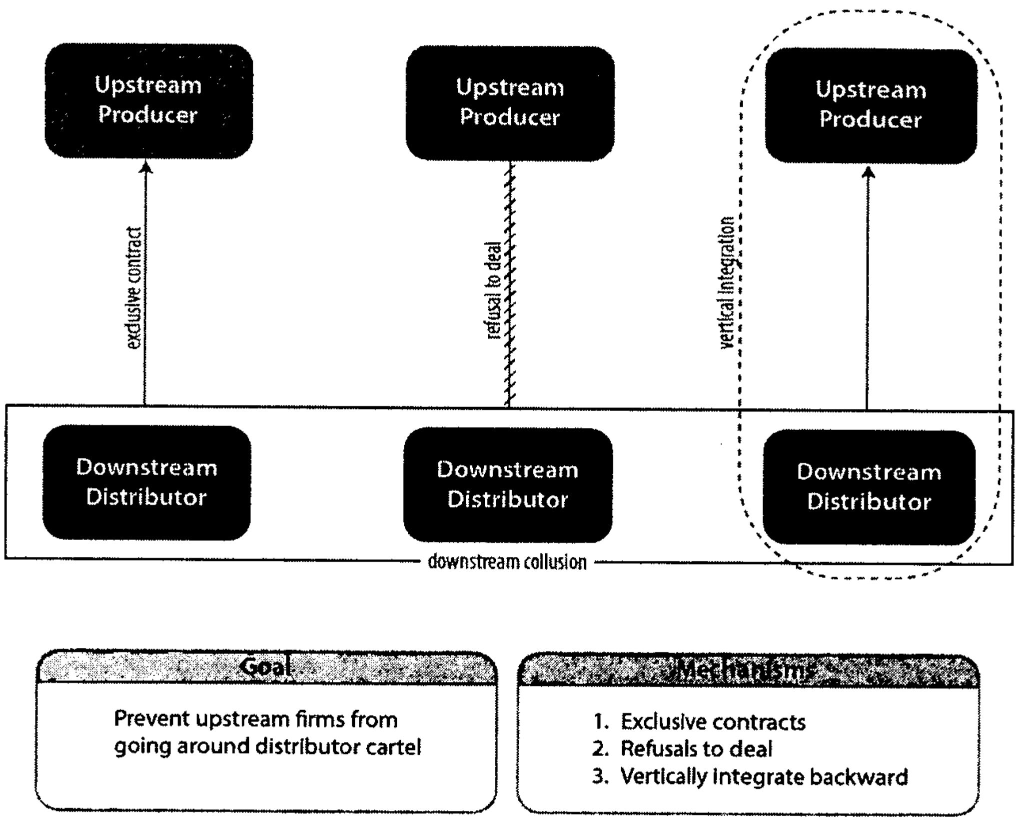

FIGURE 3
TYPE C: VERTICAL COOPERATION TO PREVENT UPSTREAM FIRMS FROM DISRUPTING DOWNSTREAM CARTEL

III. EMPIRICAL EVIDENCE OF IDEAL TYPES: ILLUSTRATIVE CASES

We now turn to a qualitative analysis of selected cartel cases, using our classification of the types of vertical interactions that facilitate collusion.

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raise the price of the final product and decrease final demand. This is completely analogous to the case where monopoly power at a point in a vertical supply chain creates "double marginalization." See the lengthy discussion of this issue in JEAN TIROLE, THE THEORY OF INDUSTRIAL ORGANIZATION 174–77 (1988).

A. TYPE A: UPSTREAM AND DOWNSTREAM FIRMS COLLABORATE TO FACILITATE COLLUSION

As discussed above, it is well understood that cartels must prevent cheating. The sorbates cartel provides a useful example of the ways in which cartels rely on vertically separate distributors to assist in this role. According to the European Commission's report, the lack of observability of end-user prices created coordination and enforcement challenges for the sorbates cartel.[26] The cartel adjusted its strategy to address these information challenges, coordinating on prices to dealers rather than to end users: "During the 1993 spring joint meeting, however, it was agreed that target prices should in future relate to the price to be charged to dealers, given the difficulties encountered among the Japanese producers in finding information about and controlling prices to end users."[27]

You might expect that having their input prices be the focal point of collusion would give rise to resistance from dealers. Instead, dealers in turn shared information with producers regarding competitor pricing so that dealers could be effective "eyes and ears" of the cartel: "Hoechst and the Japanese producers monitored target price adherence through the data regarding competitor pricing which they used to receive through their dealers."[28] The dealers were not exclusive to a single producer; they had and shared information about and with multiple producers.[29] The European Commission credited this information sharing with ensuring "the effective implementation of the targets set."[30]

Similarly, the European Commission noted the roles of vertical relationships in the specialty graphite cartel.[31] There is evidence that this cartel was having difficulty achieving its target prices: "The contemporaneous meeting report provided by Ibiden and the summary provided by Tokai show that the meeting was convened with the object of improving the implementation of decisions and the communication among manufacturers. Price increases were not showing good progress . . . ."[32] The response by the cartel was to take

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[26] Case COMP/E-1/37.370—Sorbates, Comm'n Decision, ¶¶ 100, 113–116 (Oct. 1, 2003) (summary at 2005 O.J. (L 182) 20), ec.europa.eu/competition/antitrust/cases/dec_docs/37370/37370_44_1.pdf.

[27] *Id.* ¶ 100 (citations omitted).

[28] *Id.* ¶ 113.

[29] *Id.* ¶ 72.

[30] *Id.* ¶ 325.4.

[31] Case COMP/E-2/37.667—Specialty Graphite, Comm'n Decision (Dec. 17, 2002) (summary at 2006 O.J. (L 180) 20), ec.europa.eu/competition/antitrust/cases/dec_docs/37667/37667_86_1.pdf. One distributor, Carbon Industries (CIP), was thought to be a "troublemaker" in the German market. *Id.* ¶ 254. The cartel's response was to include CIP in the cartel. *Id.* The table of participants indicates that local (national) meetings often included distributors, while manufacturers represented themselves at top level or European-wide meetings. *Id.* tbl. at 27.

[32] *Id.* ¶ 202.

advantage of vertical connections "to monitor better the sales channels and the prices by taking further control of local agents."[33]

The carbonless paper cartel had a similar, sophisticated information sharing and coordination operation that made use of the cartel participants' industry association.[34] The association produced aggregate reports and made them available to association members.[35] EC investigators found that cartel members had individual reports in their files, suggesting that they had found other ways to make sales information observable.[36] Some of the carbonless paper producers were vertically integrated, and thus able to easily share such information, but many were not.[37] However, the Commission report does note that "Suppliers tend to have long-term relationship [sic] with their merchants" and "merchants have considerable market power."[38]

In other cases, distributors were critical in preventing entry or competition from outsiders. For example, in the haberdashery industry, Coats, a distributor of needles, pins, and thread, had a long-standing reputation and relationship with customers.[39] Coats colluded with Prym, a vertically integrated manufacturer, to force the non-vertically integrated manufacturer, Entaco, to respect the territorial divisions adopted by Coats and Prym.[40] Entaco could only reach customers with the assistance of a distributor.[41] Entaco's access to a distributor in the United Kingdom and Ireland was made conditional on Entaco's acceptance of contracts that restricted it to the geographical markets.[42]

Similarly, South African bicycle retailers initiated inter-firm cooperation among importers in part to discourage them from aligning with discount retailers. The retailer strategy was to eliminate downstream competition by en-

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[33] *Id.*

[34] Case COMP/E-1/36.212—Carbonless Paper, Comm'n Decision, 2004 O.J. (L 115) 1.

[35] "AEMCP members supply individual data on a monthly basis to Deloitte & Touche, which collates the information and produced aggregated statistics for West European countries and combined statistics for both the other European countries and the overseas markets. These aggregated statistics provided for the AEMCP members do not identify the sales volumes of individual producers." *Id.* ¶ 98.

[36] "[O]n AWA's premises the Commission also discovered tables containing detailed information on individual carbonless paper producers' sales." *Id.* ¶ 99.

[37] "AWA, Stora, and Torraspapel in particular carry out part or all of the distribution function themselves or through their own merchant companies. Some small producers, mainly supplying local markets, likewise often sell direct to customers. The other carbonless producers sell mainly to independent merchants." *Id.* ¶ 23.

[38] *Id.* ¶¶ 21–22.

[39] *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.

[40] *Id.* ¶¶ 65–76.

[41] *See id.* ¶¶ 3–8.

[42] *Id.* ¶¶ 81–96.

couraging upstream coordination.[43] ProBike, an upstream firm, was importing parts, allowing it to assemble and sell bicycles at a discount because they were avoiding import duties.[44] Retailers encouraged cooperation among importers to raise prices and margins and threatened the maverick producer with a boycott.[45]

More detailed evidence of actions by distributors to control entry is obtainable from earlier eras when antitrust policies were non-existent or their enforcement weaker. In the early 20th century chloroform industry, for example, incumbent distributors controlled access to customers; they used their control of customer access to limit entry and support upstream collusion.[46] The Dow Chemical Company entered this market with newly created electrolytic technology that exhibited much greater economies of scale.[47] As Dow expanded across markets, the scale economies inherent in its technology led it to try to evade cartel restrictions in a number of related chemical product markets.[48] In each case, incumbent producers attempted to limit Dow's ability to increase production by restricting access to customers, primarily through refusals to deal on the part of established distributors.[49] Established distributors worked with cartel members, and would not provide access to customers to an upstart company that did not cooperate with others.[50] Reputation was particularly important in the chloroform market as its primary use at the time was in anesthesia during surgery; impurities could be deadly, so most customers were not willing to experiment with new producers without a reputation for consistent high quality output. Incumbent distributors had valuable reputations, and both doctors and patients trusted them to evaluate product quality.

Asker and Hemphill elsewhere in this Symposium describe a case in the Canadian sugar industry, where a distributor cartel prevented entry by foreign firms trading exclusion for collusion.[51] Distributors refused to carry imported sugar.[52] In return, the four Canadian sugar refiners charged non-cartel distributors a higher price, creating an incentive for all sugar intermediaries to join the distributor cartel. This quid pro quo between refiners and distributors al-

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43 The Competition Comm'n v. Fritz Pienaar Cycles (PTY) Ltd., Case CR049JUL12 ¶¶ 98–104 (CT May 30, 2016) (S. Afr.).

44 *Id.* ¶ 17.

45 *Id.* ¶ 73.

46 MARGARET LEVENSTEIN, ACCOUNTING FOR GROWTH: INFORMATION SYSTEMS AND THE CREATION OF THE LARGE CORPORATION 70–85 (1998).

47 Margaret Levenstein, *Mass Production Conquers the Pool: Firm Organization and the Nature of Competition in the Nineteenth Century*, 55 J. ECON. HIST. 575, 601 (1995).

48 LEVENSTEIN, *supra* note 46, at 70–85.

49 *Id.*

50 Levenstein, *supra* note 47, at 607–08; Levenstein & Suslow, *supra* note 1, at S28 n.28.

51 Asker & Hemphill, *supra* note 19, at 104.

52 *Id.*

lowed each to earn supra-normal rents. This kind of arrangement is particularly effective when the potential entrants are foreign importers.

The final illustration of ideal Type A behavior is coordination: in some cartel cases, downstream firms helped to coordinate the activity of upstream producers on a collusive outcome. For example, the Canadian chocolate cartel involved the major manufacturers of candy bars, but was facilitated and coordinated by a distributor, Itwal, representing grocery stores around the country.[53] Itwal had a relationship with all manufacturers, and therefore was in position to play ringleader. Itwal monitored discount offers by each of the chocolate producers, making it easier for each of them to commit not to discount. Itwal made producers aware when discounting occurred. Itwal monitored and reported back to the manufacturers information about advertising, discounts, trade spend, and selling to discount retailers, both making producers aware of this activity on the part of their competitors and articulating the zero-sum impact of these discounts. Itwal encouraged chocolate producers not to use discount stores, and in return for foreclosing discount stores, Itwal provided information and coordinated collusion by producers.[54]

Distributors helped with coordination in the specialty graphite cartel as well, albeit in a smaller role than in chocolates or carbonless paper. Japanese specialty graphite producers were represented in negotiations on the European market by their European distributors.[55] This may reflect better local knowledge of language and customs on the part of the distributors. Their role as (reasonably) trusted intermediaries who had a presence in particular regional markets allowed them to facilitate the cartel, despite the obvious tension that arose because these independent distributors had incentives to cut prices to gain market share.

B. TYPE B: UPSTREAM CARTEL USES DISTRIBUTORS TO PREVENT DISSIPATION OF PROFITS THROUGH DOWNSTREAM COMPETITION

During the first half of the 1990s the two Mexican tampico fiber producers who supplied the world's requirements of this material for manufacturing brushes agreed upon export prices as well as minimum retail prices that their two U.S. distributors would charge. They also allocated sales between distributors. These "restrictions" were apparently made in cooperation with the distributors. The U.S. Department of Justice refers to this cartel as "a textbook

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[53] Pre-Conference Brief for Defendants Mars, Hershey, Nestle, Cadbury, and Itwal, Exhibit E at 5–19 (Information of Daniel Wilcock, Sworn Nov. 28, 2007), *In re* Chocolate Confectionary Antitrust Litig., 602 F. Supp. 2d 538 (M.D. Pa. 2009) (ECF No. 1935).

[54] *Id.*

[55] 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.

example of a cartel among producers enhanced and strengthened by a resale price agreement, all leading to higher prices to consumers,"[56] noting in the Competitive Impact Statement that "[as] a condition of becoming and remaining a United States distributor of tampico fiber, the defendant agreed by written contract with its supplier to sell at the prices listed on the price sheet."[57] It is not clear from the public record how the distributors were induced to participate in this arrangement, but the highly concentrated structure, both upstream and downstream, may have facilitated the success of a relatively simply RPM scheme in maintaining a collusive outcome.[58]

The importance of control over distribution can be seen in the specialty graphite industry, where some firms were vertically integrated and some were not.[59] The specialty graphite industry had both independent distributors and vertically integrated subsidiaries who were captive distributors for their manufacturer-owners.[60] The EC Decision on this cartel indicates that collusion was easier with vertically integrated subsidiaries. Tokai (a Japanese producer) asserts:

> During the meetings, the traditional European producers (SGL and LCL) often complained about the other producers not increasing prices sufficiently. 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.[61]

The value of distributors who cooperate with a cartel is highlighted by those instances where they do not.

The choline chloride (vitamin B4) cartel also endeavored to use vertical restraints to prevent discounting by downstream firms.[62] Each cartel member was expected to implement its pricing strategy by utilizing downstream firms

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56 Press Release, U.S. Dep't of Justice, Massachusetts Tampico Fiber Distributor Charged in Price Fixing Conspiracy (Aug. 29, 1996).

57 Competitive Impact Statement at 4, United States v. A&L Mayer Assocs., No. 96-CV-4044 (E.D. Pa. May 30, 1996).

58 United States v. Brush Fibers, Inc., No. CV96-5945, 1996 WL 925858 (E.D. Pa. Nov. 12, 1996); United States v. A&L Mayer Assocs., No. 96-CV-4044, 1996 WL 557849 (E.D. Pa. June 12, 1996); United States v. Ixtlera de Santa Catarina, No. 96-CV-6515, 1996 WL 925857 (E.D. Pa. Dec. 10, 1996).

59 Case COMP/E-2/37.667—*Specialty Graphite*, ¶ 505.

60 *Id.* ¶ 30.

61 *Id.* ¶ 192.

62 Case COMP/E-2/37.533—Choline Chloride, Comm'n Decision, ¶ 69 (Dec. 9, 2004) (summary at 2005 O.J. (L 190) 23), ec.europa.eu/competition/antitrust/cases/dec_docs/37533/37533_43_1.pdf.

in its home market to enforce downstream resale prices.[63] This was complicated because the downstream firms were not simply re-sellers but "converted" liquid choline chloride into a dry form.[64] Some of the dry choline chloride was used by the manufacturers themselves to produce a final product and some was sold on the market to competing, vertically separated producers of fortified animal feeds.[65] When this cartel pricing implementation strategy proved insufficient, additional vertical restraints were implemented to prevent converters from undermining the market power of the cartel. Vertically integrated producers offered manufacturers without integrated supply of raw materials contracts that required them to sell all of their output to the vertically integrated firm.[66] These contracts ensured that the converters themselves could not disrupt the collusive agreement.

Apple's conspiracy with e-book publishers provides another twist on the theme of "trading [upstream] collusion for [downstream] exclusion." In this case, a downstream distributor (Apple) colluded with upstream producers (book publishers).[67] Apple was willing to give publishers a better deal and more control over downstream pricing by using an agency model in return for the publishers' pressure to make Amazon use the same model or be excluded altogether.[68] The result would be a higher price point for both Apple and Amazon e-books. While we do not usually expect a downstream retailer to encourage upstream collusion, Apple seems to have hoped that by encouraging collusion among publishers it could create a countervailing power to the dominance of Amazon—albeit at higher prices.[69] Without the complicity of the e-book publishers, Apple would not have been able to compete successfully at higher (not lower) prices.

A conspiracy between banks (Bank of America, UBS, and GE Capital) and a financial services firm (CDR Financial Products) may seem very different from conspiracies in manufactured goods but provides a useful and broader illustration of the role of downstream intermediaries in facilitating collusion.[70] The customers in this case were municipal authorities which needed to invest funds that they had raised selling bonds, but were not yet ready to use the

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[63] *Id.* ¶ 65.

[64] *Id.* ¶ 32.

[65] *Id.* ¶¶ 32, 44.

[66] *Id.* ¶ 192.

[67] United States v. Apple, Inc., 791 F.3d 290, 297 (2d Cir. 2015).

[68] *Id.* at 302.

[69] *Id.* at 322–23 (explaining that Apple's scheme should be treated similarly to General Motors' coordination of a group of dealerships to prevent other dealers from selling cars at discount prices (citing United States v. Gen. Motors Corp., 384 U.S. 127 (1966))).

[70] Morgan Chase and Wells Fargo also paid penalties in the case. Nate Raymond, *Brokerage Founder Avoids Jail in Muni Bond Big-rigging Case*, REUTERS (Mar. 12, 2014).

funds for local projects.[71] CDR had a contract with state and local entities to conduct an open bidding process for contracts for the investment of cash proceeds from the sale of these bonds; this open bidding process is required by law.[72] CDR conspired with bidding banks to assign winners and losers in the bidding process.[73] This market-fixing activity is comparable to cartels that use secret knockout bids to determine which cartel member should win each auction.[74] In this case, CDR used its private knowledge of the participating banks and municipalities to select the winner. CDR argued that it was in fact selecting the most efficient provider of these services for each customer, in the same way that a knockout process identifies the winner of each auction as the bidder who is most willing to pay.[75] By doing so privately, bidders did not have to offer a higher bid to municipalities to credibly signal their higher valuation of the financial services contract. Instead, CDR arranged the bidding so that the bank that it believed would be most efficient would win, generating returns that could then be shared by the banks and CDR.

Despite differences between the municipal bond case and the manufacturing cartels described above, there are important similarities. CDR essentially functioned as a joint sales agency, brokering a service rather than a good. CDR had formal contracts that gave it exclusive access to customers (municipalities with cash from bond sales to invest). It was this access that allowed it to facilitate collusion by banks. Unlike a joint sales agency, the broker was hired by the customer rather than the producer. The collaboration with upstream producers was secret.

CDR's market power came from the contracts that it had with municipalities. As is often the case with customers, municipalities were generally not in a good position to assess whether they are being offered competitive services. Rather, they rely on intermediaries for the information that allows them to conduct such assessments. Intermediaries have information about customers and suppliers that the two parties generally do not have about each other. When intermediaries use this information to mediate trades, they create value for which customers and suppliers are willing to pay. Intermediaries may also use information to facilitate upstream collusion. Just as purchasers of pins relied on Coats's branding in a way that allowed Coats to exclude non-cooper-

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71 United States v. Rubin/Chambers, Dunhill Ins. Servs., 798 F. Supp. 2d 517, 521 (S.D.N.Y. 2011).

72 *Id.*

73 *Id.*

74 John McMillan, Dango: *Japan's Price-fixing Conspiracies*, 3 ECON. & POL. 201, 201–07; Asker, *supra* note 21, at 727–28.

75 Telephone Interview with David Rubin, Former Chief Executive Officer, CDA Financial Products (Feb. 2, 2018). We thank Mr. Rubin for speaking with us.

ative manufacturers from the market,[76] CDR's contracts with municipalities allowed it to steer customers to its favored banks.[77] Thus, despite many differences between municipal bonds and haberdashery goods, both are examples of upstream collusion being facilitated by a downstream intermediary who has information about, and a reputation with, customers.

C. TYPE C: VERTICAL COOPERATION TO PREVENT UPSTREAM FIRMS FROM DISRUPTING DOWNSTREAM CARTEL

Our analysis of European Commission decisions over the period where detailed decisions were issued reveal no cases charging retailers with explicit collusion. Despite increases in concentration of retailing in some sectors, it is rare for retailers to have sufficiently durable control of their markets to collude successfully. There are examples, however, from other countries and historical periods.

In 2016, Ajay Bhaskarabhatla et al. demonstrated that a retailer cartel in India used their control over access to customers to enforce cooperation of upstream manufacturers with the downstream retailer cartel.[78] In this case, pharmaceutical manufacturers were required to sign exclusive agreements to sell only through drug stores which were members of the retailer cartel and to set prices such that drug stores received no less than a minimum margin on their sales.[79] Manufacturers that tried to sell using alternate retailers, or to price in a way that would reduce retailer margins, were punished by being cut off entirely from customers.[80] Manufacturers which sold exclusively through cartel members were rewarded. The cartel used its multi-product, multi-region status to sustain itself, targeting markets that were particularly valuable to defecting manufacturers.[81]

Ajay Bhaskarabhatla's article in this symposium analyzes a different aspect of the same cartel to show how the retailer cartel managed the process of

[76] Case COMP F-1/38.338—PO/Needles, Comm'n Decision, ¶¶ 1, 2, 14–19 (Oct. 26, 2004) (summary at 2009 O.J. (C 147) 23), ec.europa.eu/competition/antitrust/cases/dec_docs/38338/38338_332_1.pdf.

[77] United States v. Rubin/Chambers, Dunhill Ins. Servs., 798 F. Supp. 2d 517, 522 (S.D.N.Y. 2011). There are numerous historical examples of single sales agents playing a similar role. *See, e.g.*, Henry Hudson, *The Southern Railway & Steamship Association*, 5 Q.J. ECON. 70, 72 (1890); Levenstein, *supra* note 47, at 575–78; Thomas S. Ulen, Summary of Dissertation, *Cartels and Regulation: Late Nineteenth-century Railroad Collusion and the Creation of the Interstate Commerce Commission*, 40 J. ECON. HISTORY 179 (1980); Thomas S. Ulen, *The Market for Regulation: The ICC from 1887 to 1920*, 70 AM. ECON. REV. 306, 307–09 (1980).

[78] Ajay Bhaskarabhatla et al., *Hit Where It Hurts: Cartel Policing Using Targeted Sales and Supply Embargoes*, 59 J.L. & ECON. 805, 807 (2016).

[79] *Id.* at 814–15.

[80] *Id.* at 815.

[81] *Id.* at 807.

setting maximum resale price maintenance to prevent manufacturers from encouraging competition among retailers.[82] Producers wanted to be able to favor particular retailers with whom they had a special relationship. This type of long-term relationship with select retailers is analogous to forward integration and was strongly resisted by the retailer cartel.

There are many historical examples of downstream firms behaving collusively. For example, in the late 19th century bromine industry, downstream firms controlled the market.[83] These firms purchased bromine from producers, primarily in Ohio and West Virginia, in a form not suitable for pharmaceutical consumption.[84] The downstream firms, Powers & Weightman (P&W) of Philadelphia and Mallinckrodt of St. Louis, refined it into household products (akin to Bromo-Seltzer) and distributed it to drug stores.[85] Between the late 1880s and 1905, these two downstream firms divided the U.S. market geographically.[86] They also had an agreement with European bromine producers to respect one another's markets.[87] Domestically, P&W and Mallinckrodt had an agreement with an intermediary (Mr. Shields, who was described as the "bromine pool"), who in turn had contracts to purchase the entire output of all the bromine producers in the United States.[88] It was virtually impossible during this period for bromine producers to reach final consumers without working with one of these established distributors. P&W and Mallinckrodt in turn purchased their bromine exclusively from the pool.[89] There seem to have been rents earned by the parties at all three levels—distributors, pool, and producers—which were actively invested in maintaining it.

As Margaret Slade describes in this volume, the Secrétan corner, or attempted corner, functioned like many of the "pools" of that period, in which a single downstream agent (an individual, like Secrétan, or Shields for the bromine pool) contracted to purchase the entire output of a producer. For this kind of contract to be effective in limiting competition, it must cover most output capacity in the industry, essentially giving the downstream agent monopoly control. In this industry, Secrétan managed to contract for control of 80 percent of industry output. Copper producers were explicitly prohibited from selling to anyone else, but the quantity of their output was not limited.

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[82] Ajay Bhaskarabhatla, *Maximum Resale Price Maintenance and Retailer Cartel Profits: Evidence from the Indian Pharmaceutical Industry*, *infra* this issue, 83 ANTITRUST L.J. 41 (2020).

[83] Levenstein, *supra* note 47, at 587–89.

[84] *Id.* at 590–91.

[85] *Id.*

[86] *Id.* at 592.

[87] Margaret C. Levenstein, *Do Price Wars Facilitate Collusion? A Study of the Bromine Cartel Before World War I*, 33 EXPLORATIONS IN ECON. HIST. 107, 119 (1996).

[88] *Id.* at 593–94.

[89] *Id.* at 594.

This might have worked if supply were less elastic (as it was believed to be, according the *Engineering and Mining Journal*, which "notes that it takes at least two years for new investment to come online and up to one year to open a dormant mine").[90] Eventually the emergence of a more elastic producer of bromine, the Dow Chemical Company, similarly led to the demise of Mr. Shields' bromine pool.[91]

IV. POLICY IMPLICATIONS OF OUR ANALYSIS OF THE WAYS IN WHICH VERTICAL RELATIONSHIPS FACILITATE COLLUSION

We turn now to the policy implications of this framework for designing mechanisms to prevent vertical relationships from undermining competition and supporting collusion. We offer recommendations for each type of anticompetitive behavior we have identified.

We first demonstrated that downstream firms may share information about demand to prevent cheating on collusive agreements. A simple prohibition on information sharing is likely to have more detrimental than procompetitive effects. It would be counterproductive to restrict the sharing of information between distributors and producers, as this has important benefits for consumers, including production efficiencies, by providing producers with information about what consumers want. Restricting the sharing of information about competitors' behavior might seem more appealing, but receiving such information from distributors can be an important part of an effective strategy to compete, not to collude. There may be certain types of information that should not be shared, or should not be shared in certain circumstances. Future research on vertical relationships should examine the efficiency and competition effects of different types of information sharing. For example, should there be additional restrictions on distributors who serve multiple competing suppliers? In many cases, suppliers themselves may impose those restrictions in order to prevent confidential commercial information from being shared with competitors. Competition authorities might want to investigate if suppliers are not imposing such restrictions.

In many cases, vertical relationships are successful in maintaining collusion because they help to prevent entry. Asker and Hemphill carefully and insightfully describe the tradeoffs in considering civil or criminal litigation under the Sherman Act.[92] Given the tradeoffs they describe, Federal Trade Commission actions to prohibit practices in an industry that, in combination,

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[90] Margaret E. Slade, *Vertical Restraints Imposed by Buyers: The Secrétan Copper Cartel, 1887–1889*, *infra* this issue, 83 ANTITRUST L.J. 75, 77 (2020).

[91] LEVENSTEIN, *supra* note 46, at 80–82.

[92] Asker & Hemphill, *supra* note 19, at 122–23.

constitute an equilibrium that undermines competition may be more effective than Sherman Act prosecutions. Competition policy could shift its focus away from the intent and explicit communication critical to Sherman Act cases and toward defining a set of behaviors which, in concert, undermine competition.[93]

To prevent distributors from helping producers to coordinate on a collusive equilibrium, competition agencies could question contractual arrangements that divide markets (e.g., geographic, product, or customer divisions) where there is significant concentration. Where distributors represent multiple upstream, competing producers (as in the Canadian chocolate case), it may be advisable to place restrictions on parallel communication or other ways in which the distributor might act as an intermediary among competing firms.

We turn now to policy instruments to address the concern that upstream colluding firms may impose vertical restraints on downstream firms to prevent competition from re-emerging downstream and dissipating their hoped-for collusive profits. It is this threat to competition that has motivated much of the limitation on vertical restraints. The first recommendation is a negative: vertical restraints should not be per se legal, as argued classically by Bork.[94] In a different context, this same argument has been made more recently by the then-Judge Brett Kavanaugh in the *Comcast Cable* case.[95]

Some types of vertical arrangements should be per se illegal. For example, competition authorities should prohibit joint sales agencies, in which all upstream producers have an exclusive relationship with the same downstream firm (or the same firms, each operating in a discrete geographic or product market). Such joint sales agreements create a dominant or monopoly position for the sales agent, and the result would be obviously anticompetitive. Under a rule of reason, competition authorities may also appropriately limit certain

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[93] Benjamin Klein presents an interesting argument that suggests that downstream entry (in this case Apple) could facilitate upstream collusion by pressuring a dominant distributor (Amazon) that provided a countervailing market power to collusive publishers. Benjamin Klein, *The Apple E-books Case: When Is a Vertical Contract a Hub in a Hub-and-Spoke Conspiracy?*, 13 J. COMPETITION L. & ECON. 423, 442 (2017). This argument reinforces our point that, in the presence of concentration, examining the impact of vertical relationships on competition needs to look beyond the "misdeeds" of individual firms. Surely, new entry into a market is never a misdeed; in this second best world, the impact of entry was to facilitate the collusive strategies of upstream firms.

[94] BORK, *supra* note 2, at 288–91.

[95] Stephen Calkins, *How Might a Justice Kavanaugh Impact Antitrust Jurisprudence?*, CHI. BOOTH STIGLER CTR.: PROMARKET (July 20, 2018) (commenting on Kavanaugh's "concurring opinion in *Comcast Cable Communications, LLC v. FCC*, in which the court rebuffed the FCC's order requiring Comcast to carry the Tennis Channel on equal terms with comparable Comcast-owned offerings. . . . Kavanaugh separately wrote a sweeping opinion disagreeing with the FCC and saying that statutory language authorizing regulations to prevent conduct that 'unreasonably restrain[s]' a rival from 'compet[ing] fairly by discriminating . . . on the basis of affiliation or nonaffiliation' . . . (b) must have meant that all vertical restraints are per se protected at least absent proof of market power.").

exclusive arrangements, such as exclusive territories and exclusive dealing. Competition authorities should consider these behaviors unacceptable when there are monopolies or firms abusing a dominant market position. Competition authorities also need to take seriously the risks to competition from such behavior when the upstream market is highly concentrated, as it increases the likelihood of collusion. One way to implement an approach to these types of vertical arrangements is to adopt a full rule of reason analysis. The U.S. Supreme Court takes a narrow approach to per se liability and requires the application of the rule of reason in almost all cases.[96] In this context, competition authorities may address these threats to competition by shifting the burden of proof and requiring firms engaging in these kinds of activities to demonstrate their procompetitive effect and then to show that the procompetitive effect could not be reasonably achieved through less anticompetitive means.[97] Even if the vertical restraint survives that scrutiny, the competition authorities should require that the respondents show that procompetitive effect outweighs the presumed burden on competition.[98] In our view, courts and agencies should more closely examine vertical restraints using a strict application of the rule of reason when the restraints facilitate cartel and other anticompetitive behavior among competitors.

Vertical mergers are likewise not necessarily innocuous, as in some markets firms may initially use vertical restraints to facilitate collusion and then turn to vertical integration as a more effective way to stabilize the cartel. Rather than presuming that vertical mergers will contribute to a more efficient organization of the supply chain, competition authorities should consider the possibility that the merger is designed to help reduce or foreclose horizontal competition.[99] If the upstream industry is highly concentrated, and therefore more susceptible to collusion, serious scrutiny of vertical mergers could elimi-

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[96] *E.g.*, Ohio v. Am. Express Co., 138 S. Ct. 2274, 2284 (2018) ([P]er se treatment is reserved for a very small group of restraints that are "manifestly anticompetitive" and "lack . . . any redeeming virtue.").

[97] *Id.*; *see* Final Order at 15, Impax Labs., Inc., FTC Docket No. 9373 (Mar. 28, 2019).

[98] *See, e.g.*, FTC v. Motion Picture Advert. Serv. Co., 344 U.S. 392, 395 (1953); Final Jury Instructions, ZF Meritor LLC v. Eaton Corp., 646 F. Supp. 2d 663 (D. Del. 2009) (Civ. No 06-623-SLR) (including jury instructions in a vertical exclusion case with the burden-shifting presumption); United States v. Visa U.S.A. Inc., 163 F. Supp. 2d 322, 342 (S.D.N.Y. 2001) (applying rule of reason analysis where Visa and Mastercard collectively had high shares exceeding 70% in a highly concentrated market); United States v. Am. Express Co., 88 F. Supp. 3d 143, 167 (E.D.N.Y. 2015) (applying full rule of reason analysis in holding that despite the vertical nature of the merchant contracts, the anti-steering provisions had anticompetitive effects in the horizontal market for credit card discount fees).

[99] J. Robert Robertson, *Non-Horizontal Merger Enforcement? Of Course They Can*, ANTITRUST, Summer 2018, at 54 (arguing that existing law gives competition authorities the power to oversee vertical mergers in this manner, and in fact that the original intent of the legislation clearly included vertical mergers in its scope).

nate one mechanism that cartels regularly use to limit the re-emergence of competition at other stages of the value chain.[100]

A number of the cartels we described above relied on RPM-like restrictions. Since *Leegin,* minimum RPM has been subject to a rule of reason in U.S. courts. In *Leegin,* the Supreme Court acknowledged that RPM could be used to facilitate collusion: "Resale price maintenance may, for example, facilitate a manufacturer cartel or be used to organize retail cartels. It can also be abused by a powerful manufacturer or retailer. Thus, the potential anticompetitive consequences of vertical price restraints must not be ignored or underestimated."[101] The Court suggested as well that the focus of concern should be on retailer cartels and RPM initiated by retailers, as they were skeptical that if "a manufacturer adopted the policy independent of retailer pressure, the restraint [would] promote anticompetitive conduct" noting that "[a] manufacturer also has an incentive to protest inefficient retailer-induced price restraints because they can harm its competitive position." The examples in this article provide evidence that manufacturers do initiate these types of vertical restraints in order to facilitate collusion and that rather than protest retailer-induced restraints they at times welcome them.[102]

As suggested by the Court in the *Leegin* decision, there is more skepticism of vertical restraints when initiated by downstream firms: "The source of the restraint may also be an important consideration. If there is evidence retailers were the impetus for a vertical price restraint, there is a greater likelihood that the restraint facilitates a retailer cartel or supports a dominant, inefficient retailer."[103] Most of the ways that firms engage in "Type C" collusion are currently prohibited, or at least treated with suspicion, under current U.S. policy and law. For example, sudden refusals to distribute a product via previously

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[100] For discussions of the impact of vertical mergers on competition, see, e.g., Paul Johnson & Anthony Gamble, *The Rediscovery of Vertical Merger Enforcement?*, CPI ANTITRUST CHRON., Aug. 2018, at 1; and Steven C. Salop, *Invigorating Vertical Merger Enforcement*, 127 YALE L.J. 1962 (2018).

[101] Leegin Creative Leather Prods., Inc. v. PSKS, Inc., 551 U.S. 877, 893–99 (2007) ("If, by contrast, a manufacturer adopted the policy independent of retailer pressure, the restraint is less likely to promote anticompetitive conduct. *Cf.* Posner 177 ('It makes all the difference whether minimum retail prices are imposed by the manufacturer in order to evoke point-of-sale services or by the dealers in order to obtain monopoly profits'). A manufacturer also has an incentive to protest inefficient retailer-induced price restraints because they can harm its competitive position.").

[102] *See, e.g.*, Wan Cha, *A New Post-*Leegin *Dilemma: Reconciliation of the Third Circuit's* Toledo Mack *Case and the Second Circuits'* Apple E-books *Case*, 67 RUTGERS U. L. REV. 1547 (2015) (examining *Leegin*'s implicit guidance for using a structured rule of reason to evaluate vertical restraints with awareness of the possibility of collusion); Christine A. Varney, *A Post-*Leegin *Approach to Resale Price Maintenance Using a Structured Rule of Reason*, ANTITRUST, Fall 2009, at 22 (advocating a structured rule of reason in these cases).

[103] *Leegin*, 551 U.S. at 897.

accepted channels, as was observed in the Indian pharmaceutical case described above and elsewhere in this symposium, should be investigated.

Agreements that require producers to sell all of their output to one distributor or a small, well-defined group of distributors may be problematic, especially if they make that agreement conditional on the actions of other producers in the industry. Exclusive contracts that are conditioned on parallel exclusivity should be per se illegal. Such agreements, while appearing to be vertical in nature, can eliminate horizontal competition.[104] In the current antitrust environment, firms may not make requirements for parallel behavior explicit in contracts, so it is incumbent on the competition authorities to investigate when underlying conditions (e.g., a small number of players) are favorable to collusion.

V. CONCLUSIONS AND IMPLICATIONS FOR FUTURE RESEARCH

We have provided a typology for classifying and understanding the various ways that vertical relationships can support anticompetitive behavior, especially horizontal collusion. This typology recognizes how vertical relationships can reduce competition in three different underlying market structures. Vertical relationships can do this both by changing the incentives and the information of market participants and by changing what is visible to competition authorities. In some cases, multiple vertical relationships simply mask explicit collusion. In other cases, vertical relationships make collusion more stable than would be the case absent the active role of upstream and downstream firms.

The prevalence of vertical restraints among EC horizontal collusion cases should concern policy makers. Are some industries more likely to use vertical relationships to support collusion? If so, which industries and why? We currently cannot answer this question in a rigorous way, as there is not sufficient cross-sectional data to estimate this. We recommend that competition authorities systematically gather information on the role of vertically connected firms when they are investigating cases of explicit horizontal collusion. Without this information, our understanding of how horizontal and vertical restraints work in complementary fashion will remain very fragmented.

The examples presented in this article suggest that there is a need to reframe the legal conceptualization of vertical restraints. If one of the parties to an agreement complains that they are coerced, courts may be skeptical that the arrangement is efficient. If not, we assume the agreement must be good for both upstream and downstream firms, and that this is only possible if it generates more surplus that can be divided between them. That surplus may come

[104] Toys "R" Us, Inc. v. FTC, 221 F.3d 928, 932 (7th Cir. 2000).

from consumers who are willing to pay more because of services, bundled with the good, provided by the downstream firm or other efficiency-enhancing arrangements. If instead these mutually agreed upon contracts are generating collusive rents, then both producers and distributors may be partial to the arrangement, and there may be surplus to divide, but it does not come from increased willingness to pay. It comes from market power.