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Debt, Control, and Collusion

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ABSTRACT

Partial ownership of stock in multiple competing firms is an important topic in both corporate and antitrust law. Until now, the discussion has focused on ownership. This Article shifts the discussion from a focus on common ownership to a focus on common control. No prior work has addressed the role of debt-related corporate control in corporate governance and competition, but debt-control-based governance is a critical part of the corporate landscape. Further, various creditors can exert control over more than one company in the same industry without any ownership. These insights have been addressed in the corporate finance and bankruptcy law literatures, but they have not yet penetrated antitrust debates or policy. Applying such insights, this Article suggests that a fundamental change in antitrust policy is necessary to police against debt-control-based collusion.

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INTRODUCTION

A recent wave of literature claims that common ownership of portfolio firms across an industry by institutional investors may lead to anti-competitive behavior.[1] Common ownership within the same industry by mutual funds may create incentives for mutual funds to maximize the returns of their portfolio through collusion rather than maximize the value of any particular company within its portfolio.[2] Such behavior, if it exists, may violate antitrust law and harm consumers.[3]

Before proceeding with the organization of this Article, we begin with an overview of basic terms and concepts. At a basic level, there is equity and debt. Equity has various economic, managerial, and exit rights because of ownership. Debt is a different finance tool that provides capital without any of the upsides of ownership but for which the creditors receive payments made of principal and interest.

Normally, an owner of a single firm wants to maximize the profit of that one firm. This assumption may be relaxed when the same owner has a portfolio of

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[1] *See generally* Andrew Koch, Marios Panayides & Shawn Thomas, *Common Ownership and Competition in Product Markets*, 139 J. FIN. ECON. 109 (2021) (finding that increased common institutional ownership does not necessarily cause reduced competition, despite other recently published research); Yaron Nili, *Horizontal Directors*, 114 NW. U. L. REV. 1179 (2020) (arguing that corporate directors who serve on multiple boards within the same industry can also produce collusion); José Azar, Martin C. Schmalz & Isabel Tecu, *Anticompetitive Effects of Common Ownership*, 73 J. FIN. 1513 (2018) (presenting support for the anticompetitive effects hypothesis); Edward B. Rock & Daniel L. Rubinfeld, *Antitrust for Institutional Investors*, 82 ANTITRUST L.J. 221 (2018) (arguing that portfolio managers can play anticompetitive roles); Menesh S. Patel, *Common Ownership, Institutional Investors, and Antitrust*, 82 ANTITRUST L.J. 279 (2018) (stating recent empirical research suggests common ownership has anticompetitive effects); Lucian A. Bebchuk, Alma Cohen & Scott Hirst, *The Agency Problems of Institutional Investors*, 31 J. ECON. PERSPS. 89 (2017) (citing recent work that suggests index funds encourage anticompetitive behavior); Dorothy S. Lund, *The Case Against Passive Shareholder Voting*, 43 J. CORP. L. 493 (2018) ("The legal literature has . . . focused on . . . the potential for anticompetitive behavior that arises when institutional investors own large stakes in rival firms in oligopolistic industries."); Einer Elhauge, *Horizontal Shareholding*, 129 HARV. L. REV. 1267 (2016) (advocating for more antitrust enforcement under § 7 of the Clayton Act); Eric A. Posner, Fiona M. Scott Morton & E. Glen Weyl, *A Proposal to Limit the Anticompetitive Power of Institutional Investors*, 81 ANTITRUST L.J. 669 (2017) (proposing a policy to avoid anticompetitive effects of common ownership); Jonathan B. Baker, *Overlapping Financial Investor Ownership, Market Power, and Antitrust Enforcement: My Qualified Agreement with Professor Elhauge*, 129 HARV. L. REV. F. 212 (2016) (noting recent studies suggest that common ownership produces anticompetitive effects).

[2] *Cf.* Azar et al., *supra* note 1, at 1521 (hypothesizing that institutional investors such as mutual funds maximize the profits of their shareholders by diversifying portfolios across natural competitors, resulting in stifled competition).

[3] *See* Elhauge, *supra* note 1, at 1302 (positing that a cause of action exists for consumers harmed by anticompetitive stock acquisitions under the Clayton Act).

multiple firms in the same industry.[4] In this common ownership scenario, the owner of a portfolio of multiple firms may want to maximize the economic value of the entire portfolio of firms rather than any single firm, consequentially reducing competition across these firms.[5] Specifically, Owner A would normally maximize the return of Firm 1. However, when Owner A has a portfolio that includes Firms 1, 2, 3, and 4, and all four firms are in the same industry (such as the airline or fast-food industry), Owner A would prefer that the portfolio of the four forms not compete as hard, so as to maximize the joint return of all four firms.

The same incentives for maximizing the return of a portfolio of firms may also exist for certain types of debt, especially when equity investment is riskier—such as when a firm is close to, or in, bankruptcy. In that scenario, debtholders may have economic or legal control (through contractual terms) of the managerial decision-making of their portfolio of companies.[6]

This Article explores these types of tensions in greater detail. It does so by shifting the debate from a focus on common *ownership* to a focus on common *control*. No prior work has addressed the role of debt-related corporate control in corporate governance and competition, yet debt-control-based governance is a critical part of the corporate landscape.[7] Further, various creditors can exert control over more than one company in the same industry without any ownership. These insights, though found in the corporate finance and bankruptcy law literatures, have not penetrated antitrust scholarly debates or policy. Applying such insights, this Article suggests that a fundamental change in antitrust policy is necessary to police debt-control-based collusion.

The change is necessary based on a gap in the statutory structure of antitrust merger law—a gap that exempts pure debt transactions from antitrust scrutiny.[8] This gap also exists in antitrust policy and scholarship. For a field focused on the creation of legal rules that reflect an understanding of economic effects, it is surprising that antitrust law and economics have missed a fundamental issue that harms consumers. Even odder is the fact that antitrust law's current approach to debt under the Hart-Scott Rodino Act focuses on form rather than substance (e.g., antitrust agencies do not need to be notified about pure debt transactions

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4 *Id.*

5 *See id.* ("This means that an investor holding equal-sized stakes in both A and B would enjoy greater total (i.e., portfolio) profits if the two firms set prices or quantities as if they were two divisions of a monopoly instead of as two independent firms.").

6 *See infra* Part I.

7 *See infra* Part II.

8 *See infra* Part IV.A.

regardless of the economic consequences of debt-based control because there is no change in ownership),[9] despite the fact that, in other areas, antitrust law typically favors substance.[10]

In Part I, this Article provides an overview of the antitrust common ownership debate. Parts II and III identify the incentives for both management and creditor engagement in debt-control-based collusion and the mechanism by which such anti-competitive conduct can occur. Next, in Part IV, this Article argues that the appropriate antitrust test for mergers should be about a change of control rather than a change of ownership, so that transactions that can change a firm's fundamental economic power of governance can be reviewed by antitrust authorities. This new approach represents a paradigm shift reflecting the insights from corporate finance and corporate governance that have not yet impacted antitrust thinking. Finally, also in Part IV, this Article posits opportunities for policy reform, suggesting the introduction of a voluntary notification scheme, and for further research on debt-based collusion, focusing on the use of machine learning. It identifies and explains the potential anti-competitive effects of partial control and suggests an enforcement approach that is administrable within the framework of the existing antitrust theories of harm.

I. ANTITRUST ECONOMICS AND COMMON OWNERSHIP

This Part identifies the issues involved in antitrust economics and common ownership. First, it identifies the theory of competitive harm in common ownership in law and economics. Second, it illustrates the current gaps in scholarship and policy.

A. Antitrust and Common Ownership Issues

Common ownership by one or more owners across a portfolio of firms in a given industry (as facilitated by, for example, hedge funds, mutual funds, and private equity funds) may bring about anti-competitive effects by reducing the competition across firms within the commonly owned portfolio.[11] Normally,

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[9] *See infra* note 42 and accompanying text.

[10] *See* Herbert Hovenkamp & Carl Shapiro, *Horizontal Mergers, Market Structure, and Burdens of Proof*, 127 YALE L.J. 1996, 2025 (2018) (discussing the courts' incorporation of prevailing economic expertise into merger policy); D. Daniel Sokol, *Antitrust's "Curse of Bigness" Problem*, 118 MICH. L. REV. 1259, 1265 (2020) (discussing the political and economic factors that effect change in antitrust law and policy); William E. Kovacic & Carl Shapiro, *Antitrust Policy: A Century of Economic and Legal Thinking*, 14 J. ECON. PERSPS. 43, 58 (2000) ("No other country has adopted an antitrust statute that contains equally broad substantive provisions and relies so heavily on a common law method of judicial interpretation to implement them.").

[11] Azar et al., *supra* note 1, at 1521.

firms compete with each other, with a gain by one firm detracting from the market share of its competitors.[12] In the case of common ownership, an institutional investor that has stakes in Firms A, B, and C enjoys a greater total profit from their entire portfolio if there is coordination across the firms and, hence, less competition.[13]

A common owner across firms in the same industry will want to maximize their entire portfolio of investments rather than maximize their investment in one particular firm in its portfolio.[14] This means that a common owner will find a way to influence the profitability and conduct of its portfolio company rivals when they make strategic decisions in each of their portfolio firms.[15] This behavior is collusive and may harm consumers.

The existence of an antitrust common ownership problem was first recognized in the 1980s.[16] Theoretical literature continued to engage in this debate intermittently.[17] However, a series of empirical finance and law review

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12 *Id.*

13 *Id.*

14 *See* Timothy F. Bresnahan & Steven C. Salop, *Quantifying the Competitive Effects of Production Joint Ventures*, 4 INT'L J. INDUS. ORG. 155, 161 (1986) ("It would be in both parents' interest for each parent (as well as the venture) to maximize joint profits and then to redistribute the profits among the parents.").

15 Azar et al., *supra* note 1, at 1521.

16 *See* Julio J. Rotemberg, *Financial Transaction Costs and Industrial Performance* 18 (Alfred P. Sloan Sch. Mgmt., Working Paper No. 1554-84, 1984) (noting the anti-competitive effect was "simply . . . a result of [managers] looking out for their shareholders"); Robert J. Reynolds & Bruce R. Snapp, *The Competitive Effects of Partial Equity Interests and Joint Ventures*, 4 INT'L J. INDUS. ORG. 141, 142 (1986) (finding lower output and higher prices when there is partial ownership across companies within an industry); Bresnahan & Salop, *supra* note 14, at 172 (comparing the anti-competitive effects of independent joint ventures to "silent financial interest").

17 *See* Robert G. Hansen & John R. Lott, Jr., *Externalities and Corporate Objectives in a World with Diversified Shareholder/Consumers*, 31 J. FIN. & QUANT. ANALYSIS 43, 44 (1996) ("In this paper, we review how product market imperfections, in conjunction with portfolio diversification on the part of investors, lead to the rejection by shareholders of value maximization as a corporate policy."); Steven C. Salop & Daniel P. O'Brien, *Competitive Effects of Partial Ownership: Financial Interest and Corporate Control*, 67 ANTITRUST L.J. 559, 562 (2000) (identifying that partial ownership may reduce consumer welfare more than a merger of competitors); David Gilo, Yossi Moshe & Yossi Spiegel, *Partial Cross Ownership and Tacit Collusio*n, 37 RAND J. ECON. 81, 82 (2006) (focusing on the coordinated competitive effects of common ownership); Alan Kraus & Amir Rubin, *Reducing Managers' Incentives to Cannibalize: Managerial Stock Options when Shareholders Are Diversified*, 19 J. FIN. INTERMEDIATION 439, 440 (2010) ("In this paper, we examine how shareholders' diversification affects the choice of managerial compensation when managers select the mix of projects that a company pursues, and when a company's cashflow is affected by other companies' actions."); Azar, *supra* note 1, at 1521 (presenting models of competition to outline the ways in which changing market behavior benefits a firm and its owners); Duarte Brito, Ricardo Ribeiro & Helder Vasconcelos, *Measuring Unilateral Effects in Partial Horizontal Acquisitions*, 33 INT'L J. INDUS. ORG. 22, 22 (2014) ("This paper proposes an empirical structural methodology to assess quantitatively the unilateral competitive effects of partial acquisitions in a differentiated products setting, distinguishing two distinct ownership rights: financial interest

articles in recent years have drawn attention anew to the issues of common ownership and competition.[18] The new learning suggests that, as more corporate ownership is concentrated in 401(k) plans, index funds, and exchange-traded funds, a small number of institutional investors may have the ability to control their investment portfolio in the same industry—in a way that benefits their entire portfolio at the expense of competition that would have benefitted consumers.[19]

Contemporary theoretical and empirical antitrust scholarship suggests that a small number of important shareholders who have the incentive not to promote competition across the firms in their portfolio of holdings (because competition reduces the portfolio profits of common owners) can result in reduced competition and thus harm consumer welfare.[20] Common ownership diminishes the incentives to compete, and the diminution of these incentives makes it more likely for shareholders to benefit from tacit collusion.[21]

Overall, the impact of this new empirical learning has created shockwaves in antitrust thinking—so much so that antitrust agencies in the United States[22]

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and corporate control."); Samuel de Haas & Johannes Paha, *Partial Cross Ownership and Collusion* 3 (MAGKS, Working Paper No. 32-2016, 2016) ("We show that minority shareholdings destabilize collusion under a wider set of assumption [sic] than was suggested by earlier literature."); Ángel L. López & Xavier Vives, *Overlapping Ownership, R&D Spillovers, and Antitrust Policy*, 127 J. POL. ECON. 2394, 2423 (2019) (discussing results of research showing "cooperation driven by overlapping ownership leads to less output").

18 *See supra* note 1 and accompanying text.

19 Note that such an outcome holds even with passive investments, as even passive investors participate in corporate governance decision-making. *See* Alon Brav, Wei Jiang, Tao Li & James Pinnington, *Picking Friends Before Picking (Proxy) Fights: How Mutual Fund Voting Shapes Proxy Contests* 9 (Eur. Corp. Governance Inst., Finance Working Paper No. 601/2019, 2021).

20 *See supra* note 1 and accompanying text.

21 Edward B. Rock & Daniel L. Rubinfeld, *Common Ownership and Coordinated Effects*, 83 ANTITRUST L.J. 201, 204 (identifying mechanisms of collusion).

22 *See Oversight of the Enforcement of the Antitrust Laws: Hearing Before the Subcomm. on Antitrust, Competition Pol'y & Consumer Rts. of the S. Comm. on the Judiciary*, 114th Cong. (2016) (statement of Sen. Patrick Leahy, Member, S. Comm. on the Judiciary) ("Today, the work of the antitrust agencies is more important than ever."); Andrew Finch, U.S. Principal Deputy Assistant Att'y Gen., Keynote Address at Capitol Forum's Fifth Annual Tech, Media & Telecom Competition Conference: Concentrating on Competition: An Antitrust Perspective on Platforms and Industry Consolidation (Dec. 14, 2018) (available at https://www.justice.gov/opa/) speech/principal-deputy-assistant-attorney-general-andrew-finch-delivers-keynote-address-capitol ("It would be an understatement to say that antitrust is a hot topic these days . . . ."); Noah Joshua Phillips, Comm'r, Fed. Trade Comm'n, Opening Remarks at FTC Hearing #8: Competition and Consumer Protection in the 21st Century Corporate Governance, Institutional Investors, and Common Ownership (Dec. 6, 2018), https://www.ftc.gov/system/files/documents/public_statements/1454690/phillips_-_ftc_hearing_8_opening_remarks_12-6-18.pdf ("Antitrust enforcers around the world are watching [the antitrust debate's] development . . . .").

and globally have begun to seriously address the issue.[23] This includes recently proposed changes to U.S. merger filing requirements.[24]

There have been two types of responses to common ownership competition concerns: some have suggested a more cautious approach to these findings or have taken issue with them more generally;[25] others have embraced the common ownership critique to suggest putting limits on common ownership capabilities because of the competitive effects, or have suggested particular roles that antitrust law can play.[26] However, none of the original theoretical literature or contemporary work and critiques identify common debt and collusion as a distinct issue. Nor has the focus been on coordinated effects and tacit collusion. This Article addresses debt-based control along with both unilateral and coordinated effects of debt-based collusion.

Courts and antitrust agencies construe a singular economic goal for antitrust law.[27] However, the economic approach is not static. Rather, antitrust law evolves with advances in economics.[28] As the Supreme Court stated in *Kimble v. Marvel*, "We have therefore felt relatively free to revise our legal analysis as economic understanding evolves and . . . to reverse antitrust precedents that misperceived a practice's competitive consequences."[29] For this reason, antitrust doctrine has shifted in the past forty years from a formalistic, per se illegality standard to a more flexible rule of reason that focuses on the economic effects of a particular behavior.[30]

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[23] *See* OECD DIRECTORATE FOR FIN. & ENTER. AFFS. COMPETITION COMM., COMMON OWNERSHIP BY INSTITUTIONAL INVESTORS AND ITS IMPACT ON COMPETITION 5 (2017), https://one.oecd.org/document/DAF/COMP(2017)10/en/pdf (stating the importance of research on the likely effects of common ownership on competition).

[24] *E.g.*, Press Release, Fed. Trade Comm'n, FTC and DOJ Seek Comments on Proposed Amendments to HSR Rules and Advanced Notice of Proposed HSR Rulemaking (Sept. 21, 2020).

[25] *See* Daniel P. O'Brien & Keith Waehrer, *The Competitive Effects of Common Ownership: We Know Less than We Think*, 81 ANTITRUST L.J. 729, 730 (2017) ("[B]oth researchers and policy authorities are getting well ahead of themselves in calling for and implementing policy changes based on this research."); Bebchuk et al., *supra* note 1, at 108–09 (stating recent work suggests that index funds encourage anticompetitive behavior).

[26] *See supra* note 1.

[27] See Roger D. Blair & D. Daniel Sokol, *The Rule of Reason and the Goals of Antitrust: An Economic Approach*, 78 ANTITRUST L.J. 471, 473 (2012) ("The goal of antitrust, as understood by economic analysis, involves a choice of either total welfare or consumer welfare.").

[28] Herbert Hovenkamp, *The Looming Crisis in Antitrust Economics*, 101 B.U. L. Rev. 489, 544 (2021) (discussing the use of economic analysis in case law).

[29] Kimble v. Marvel Ent., LLC, 576 U.S. 446, 461 (2015).

[30] Continental T. V., Inc. v. GTE Sylvania Inc., 433 U.S. 36, 58–59 (1977) ("[W]e do make clear that departure from the rule-of-reason standard must be based upon demonstrable economic effect rather than . . . formalistic line drawing.").

Where antitrust policy has been relatively effective in marrying economic analysis to administrability concerns has been in traditional industrial organization economics, which examines competition across firms.[31] Paradoxically, antitrust policy, with its emphasis on economic analysis, is stuck in a much earlier era of thought with regard to financial economics and incentives within firms.[32] As a result, antitrust policy has created inflexible, formalistic rules solely addressing control via stock ownership instead of focusing on the economic effects of control across both debt and equity, and incentives within the firm with regard to issues of corporate control.[33] In so doing, antitrust policy has come to be at odds with economic analysis.[34]

The traditional view in antitrust economics is that debt weakens, rather than strengthens, collusion because large amounts of firm debt make deviation from a collusive agreement more attractive, since shareholders benefit from increased profits in the deviation period while debt lenders bear the cost of a defection because an individual firm may be less likely to be able to pay back its debt without the collusion.[35] Further, price wars are often characterized as a punishment mechanism within the collusion literature.[36] In a classic article, Chaim Fershtman and Ariel Pakes provide two reasons for the claim that a financially marginal firm may serve to destabilize collusive behavior: insufficient punishment and predatory behavior.[37] They theorize that a firm that is likely to exit the market because it is financially weak will have a shorter time horizon compared to other firms. Because of this shorter time horizon, such firm cannot be punished for defection from collusion in the same way as financially strong firms.[38] As a result, firms that are on a stronger financial footing prefer to

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[31] Hovenkamp & Shapiro, *supra* note 10; Kovacic & Shapiro, *supra* note 10.

[32] Barak Orbach, *D&O Liability for Antitrust Violations*, 59 SANTA CLARA L. REV. 527, 559 (2020) ("[A]ntitrust's personal accountability standards still focus on direct involvement and, as such, as relatively outdated and ineffective."); D. Daniel Sokol & Rosa Abrantes-Metz, *Antitrust Corporate Governance and Compliance*, *in* 2 THE OXFORD HANDBOOK OF INTERNATIONAL ANTITRUST ECONOMICS 586 (Roger D. Blair & D. Daniel Sokol eds., 2014) (identifying gaps between antitrust and corporate governance scholarship).

[33] Like policy literature, traditional finance literature focuses largely on issues of control, with antitrust implications addressed fleetingly. For more information, see generally GEORGE M. CONSTANTINIDES, MILTON HARRIS & RENE STULZ, 2A HANDBOOK OF THE ECONOMICS OF FINANCE (2012); GEORGE M. CONSTANTINIDES MILTON HARRIS & RENE STULZ, 2B HANDBOOK OF THE ECONOMICS OF FINANCE (2012).

[34] *Cf.* Hovenkamp, *supra* note 28, at 510 ("Antitrust policy needs to be less categorical and more empirical about assessing passed-on injury from monopolistic or cartel conduct.").

[35] *See* Chaim Fershtman & Ariel Pakes, *A Dynamic Oligopoly with Collusion and Price Wars*, 31 RAND J. ECON. 207, 221–22 (2000).

[36] Jonathan B. Baker, *Identifying Cartel Policing Under Uncertainty: The U.S. Steel Industry, 1933–1939*, 32 J.L. & ECON. S47, S55–56 (1989); Margaret C. Levenstein, *Price Wars and the Stability of Collusion: A Study of the Pre-World War I Bromine Industry*, 45 J. INDUS. ECON. 117, 133 (1997).

[37] Fershtman & Pakes, *supra* note 35, at 221–22.

[38] *Id.*

hasten the exit of the financially weak firm that cannot be counted on as a collusive partner, and therefore prefer to use predatory pricing to remove such a firm.[39] Vojislav Maksimovic makes a similar argument about debt leading to the breakdown of collusion (by changing the payoff structure) as less leverage makes cartels (firms that are colluding to price fix or limit output through some other conduct) more stable.[40]

The traditional thinking on debt and competition has made its way into antitrust legislation. The current antitrust law merger framework—a fundamental part of antitrust thinking since the 1970s with the passage of the Hart-Scott-Rodino (HSR) Antitrust Improvements Act of 1976[41]—misses all pure debt (as opposed to convertible debt) transactions.[42] So do the current proposed reforms of HSR to address common ownership.[43]

This Article advocates a fundamental reframing of antitrust thinking to address this gap in debt-related enforcement—a gap that the current economic crisis, with many companies entering into bankruptcy or into financial distress, exacerbates. In so doing, this Article turns the thinking about debt on its head and suggests that, under certain circumstances, debt will *strengthen* rather than *weaken* collusion. To understand how this is possible, this Article reviews how debt and control work. In short, one or more hedge funds, or other firms that use debt and lend to distressed firms, or firms operating under bankruptcy protection, can have no ownership but can still control decision-making in an entire industry through debt in a way that weakens competition and hurts consumers, similar to partial ownership.

The implications of operationalizing this Article's theory of debt-related control antitrust issues require the identification of both the incentives and mechanisms for anti-competitive harm. As the next section will show, debt-based common ownership alters managerial incentives such that managers may

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39 *Id.*

40 Vojislav Maksimovic, *Capital Structure in Repeated Oligopolies*, 19 RAND J. ECON. 389, 390 (1988) (allowing for convertible debt). This Article assumes only pure debt rather than convertible debt, which is reported under merger law when the firm converts the debt to equity.

41 William J. Baer, Former Dir., Bureau of Competition, Statement at the 35th Annual Corporate Counsel Institute: Reflections on 20 Years of Merger Enforcement Under the Hart-Scott-Rodino Act (Oct. 31, 1996) (available at https://www.ftc.gov/public-statements/1996/10/reflections-20-years-merger-enforcement-under-hart-scott-rodino-act) ("At the time of its enactment, [the Hart-Scott-Rodino Act] was described as one of the most far-reaching changes in antitrust enforcement since the passage of the Clayton Act in 1914. That prophesy has rung true.").

42 Antitrust agencies must be notified of convertible debt that becomes an equity stake, but that transformation fits within the ownership-as-control paradigm.

43 *See supra* note 24.

cause their firms to behave anti-competitively. Parts III and IV provide the mechanisms for such collusive activity.

B. Antitrust Economics and Debt

In the equity-based common ownership world, the linkage between common ownership and competitive harm is driven by economics models that postulate that firm managers with equity-based common ownership maximize the weighted portfolios of their respective firms' shareholders.[44] That specification of managerial behavior can be justified in a variety of ways, such as through shareholder voting.[45] That is, managers have an incentive to maximize the portfolios of their shareholders (and thus create profit linkages between the firms) because if they do not, then the shareholders will vote the managers out.[46]

The incentives for collusion work differently in debt and equity because of the differences noted in the prior section.[47] At the firm level, in the typical setting of collusion, shareholders have an incentive to have their firms engage in anti-competitive conduct, as they benefit from higher prices via collusion through increased stock valuation due to higher revenues.[48] Creditors typically lack this incentive because they lack an equity stake. Because creditors do not have the same influence over firm managers that shareholders typically have, their incentive to partake in debt-based collusion is different from that specific to managers.[49] Incentive contracts may be written in such a way that managers have lower benchmarks to make the bonus.[50]

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44 *See* Azar et al., *supra* note 1, at 1521.

45 *See id.* at 1557.

46 *Id.*

47 *See supra* Part I.A.

48 D. Daniel Sokol, *Policing the Firm*, 89 NOTRE DAME L. REV. 785, 798 (2013) ("[T]here is no agency cost for cartels because both the firm and individual cartelists benefit from cartel participation in terms of profits and stock price increases, assuming no detection of the cartel and mere basic (legal but not strong) oversight from the board.").

49 *See, e.g.*, Maksimovic, *supra* note 40, at 390 (identifying capital structure issues and market competition in a repeated game); James A. Brander & Tracy R. Lewis, *Oligopoly and Financial Structure: The Limited Liability Effect*, 76 AM. ECON. REV. 956, 969 (1986) (theorizing the impact of debt signaling on product market competition).

50 For example, law school students, when faced with the different incentives of pass/fail and graded classes, put forth varying degrees of effort. *See also* Miguel Antón, Florian Ederer, Mireia Giné & Martin C. Schmalz, *Common Ownership, Competition, and Top Management Incentives* 1 (Eur. Corp. Governance Inst., Finance Working Paper No. 511/2017, 2021) ("[W]hen large investors own shares in more than one firm within the same industry, those firms may have reduced incentives to compete.")

But in some settings, creditors may have an incentive to collude with control.[51] A necessary condition of this incentive is when the capital structure of a firm matters. Typically, this is when a firm does not have a ready market for additional equity investment because the firm is in distress and the default risk is high, or when a firm is in a state of bankruptcy, where the equity of interest is subordinate to that of the creditors.[52]

There are several factors that make debt-based control and collusion more likely under certain circumstances. The expected payoff of debt and equity for all the firms in an industry almost always gets bigger with collusion, and the variance of each firm's value is probably also lower with collusion (when colluding, no one is trying to dominate the industry, which is likely to reduce the variance).[53] This is more likely in industries that are in distress. In an ex ante sense, if debt can help lead to tacit collusion, each firm involved should want to figure out a way to make it work.[54] Ex post, debtholders have a continuing incentive to make it work.

Unlike common ownership, which focuses on the upside value of potential collusion, common debt focuses on mitigating downside risk. The type of situation that illustrates creditor incentives is as follows. In a distressed industry, Creditor A lends $100 million each to four firms. The payoff for Creditor A is $12 million in total interest ($3 million per firm), assuming all four firms pay back their respective principals of $100 million. However, since this is a distressed industry, it can be assumed that some of the firms are closer to insolvency than the others and that the entire industry is financially weak. If Firm 4 exits the market due to bankruptcy, Creditor A receives pennies on the dollar (but for purposes of illustration, let us assume that Creditor A incurs a total loss, receiving $0). In this scenario, Creditor A makes $9 million from its total investment from the three other portfolio firms ($3 million per firm)—it recoups the $300 million principal that it had lent to those three firms but loses the $100 million that it lent to Firm 4, for a total loss of $91 million in its investment portfolio.

In an alternative approach to this portfolio risk that promotes collusion, the creditors want a quiet life for their entire portfolio of firms so that the firms can

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51 A more sophisticated version of this scenario would involve both equity control for one firm and debt control for the other firms in the same industry.

52 Edward J. Green, Robert C. Marshall & Leslie M. Marx, *Tacit Collusion in Oligopoly*, *in* 2 OXFORD HANDBOOK OF INTERNATIONAL ANTITRUST ECONOMICS, *supra* note 32, at 464, 465.

53 *Id.*

54 *Id.*

pay off their loans with little risk. Creditor A decides to fix incentive contracts so that it is easy to reach a performance benchmark for the CEOs of Firms 1 through 4. Every firm competes, but not too rigorously. Now, Creditor A will get its entire payoff of $12 million, with almost no risk of default on the $400 million it had lent, because the firms have little incentive to compete against each other. Adding Creditor B with a similar strategy and payoff scheme for the same set of debtor firms helps ensure the collusive outcome.

Presumably, the distressed debt also trades below par, such that there may be upside prospects for debtholders as the firm or colluding firms take steps to improve firm value. Improving firm performance has a few tricky consequences for the colluding firms. First, the value of creditors' claims is capped insofar as the value of the once-distressed debt can typically only appreciate to par (or maybe slightly above, depending on interest rates, and so on).[55] That may be a big or small number, but in any event, it is more or less capped, unlike equity. Second, as the firms' values improve, lender control likely weakens, so that the levers for collusion become less effective. Third, what are managers and shareholders doing while the lenders are colluding? Presumably, managers would like to put equity on the balance sheet so that managers get their performance pay and do not get fired. The dynamics then suggest that debt-based collusion may be unstable—even more unstable than traditional collusion. No manager of a distressed firm wants the status quo because long term there are only two viable options—bankruptcy or an out-of-court solution. Whether they are headed for bankruptcy or an out-of-court solution, a firm's improvement weakens creditor control. So, at the least, any collusion may be unstable unless incentive-based contracts can better align management incentives, discussed in Part III.A.5.

C. Antitrust Implications

Successful collusion by creditors requires an understanding of the type of control that matters for antitrust purposes. While it may be that creditors exercise control over debtor corporations (as this Article illustrates below through five different mechanisms and in greater detail in Part III), it seems that the relevant antitrust question is whether creditors have the incentive and ability to cause corporations to violate antitrust law. Those types of control include the ability to (1) set the price, (2) decide whether to acquire companies, (3) reduce capital

[55] On how to think about the value of distressed debt, see generally Edward I. Altman & Robert Benhenni, *The Anatomy of Distressed Debt Markets*, 11 ANN. REV. FIN. ECONS. 21 (2019) (providing an overview of debt related financing issues).

expenditures, and (4) replace top management. Firms with control regularly exercise such control through contracts even when the pricing terms are not explicit and without exerting control for purposes of agency law. Such control is merely understood, such as in franchising,[56] maximum resale price maintenance,[57] and minimum advertising prices.[58]

Noting the incentives of management and creditors, the mechanism of control requires an analysis of whether, in an environment of debt-based common ownership, two situations occur: (1) managerial incentives are altered such that managers have an incentive to cause their firms to engage in anti-competitive conduct, and (2) creditors have the incentive and ability to cause corporations to behave anti-competitively.[59] To explore incentives involving debt and control in greater detail, Part II explains how debt can create such mechanisms of control.

II. DEBT AND CONTROL

A. *Overview of Debt and Control Issues*

To understand debt-based control, one first needs a brief primer on the tension between debt and equity. This tension has implications on overall

[56] *See* Itai Ater & Oren Rigbi, *Price Control and Advertising in Franchising Chains*, 36 STRATEGIC MGMT. J. 148, 149, 155 (2015).

[57] *See* Roger D. Blair & Amanda K. Esquibel, *Maximum Resale Price Restraints in Franchising*, 65 ANTITRUST L.J. 157, 157–59 (1996) (analyzing the *Albrecht* rule, which prohibits franchisors from directly controlling pricing of franchisees to maximize the franchisor's profits, and evaluating alternative means to indirectly control franchisee pricing (referencing Albrecht v. Herald Co., 390 U.S. 145 (1968))).

[58] *See generally* Ayelet Israeli, *Online MAP Enforcement: Evidence from a Quasi-Experiment*, 37 MKTG. SCI. 710 (2018) (finding that compliance rates with the minimum advertised price policy are improved when there are customized online environments, credible monitoring, and punishments for noncompliance).

[59] Antitrust history also provides some flavor to this, particularly the old "ruinous competition" cases from the 1890s and thereafter, beginning with *United States v. Trans-Missouri Freight Association*, 166 U.S. 290 (1897), as well as *Addyston Pipe & Steel Co. v. United States*, 175 U.S. 211 (1899). In the case of the railroads in particular, a very high percentage were in receivership at the time of the litigation, largely as a result of overbuilding. The defense offered for price fixing was that ruinous competition would result in a large proportion of railroad companies being driven into bankruptcy and shut down. This concern would affect creditors as well as shareholders. Sure, the creditors would have priority over the shareholders, but if the residual value is zero or close, everybody loses. That would give both shareholders and creditors an incentive to fix prices. *See generally* George Bittlingmayer, *Decreasing Average Cost and Competition: A New Look at the* Addyston Pipe *Case*, 25 J.L. & ECON. 201 (1982) (contributing "a more detailed analysis of costs in the cast-iron pipe industry and to propose what may appear to be a novel explanation for the cartelization and merger"); LOUIS D. BRANDEIS, OTHER PEOPLE'S MONEY AND HOW THE BANKERS USE IT 110–28 (Wash. Nat'l Home Libr. Found. ed. 1933) (1914) (pointing out the issue of interlocking debt holdings as essential to the railroad receiverships at the turn of the century, which allowed equity and the bondholders to roll up the unsecured creditors).

business strategy.[60] At the most basic level, equity and debt are not always the same. As an owner of the firm, a shareholder has equity therein and certain financial and managerial rights as a result. On the managerial side, shareholders can elect directors and vote their shares, among other rights. On the financial side, equity holders reap the benefits of improvements in the financial position of a firm, such as through growth of the value of their equity stake. A $10,000 investment in Amazon or Microsoft in 2000 is worth multiples of that today. Thus, equity investment can capture the upside of capital appreciation.

Debt, in contrast, does not entitle one to ownership rights in a firm. The upside of debt is limited to repayment of the principal plus payment of the interest. Whether a firm grows 1% or 1,000% is irrelevant for purposes of repayment of debt. Thus, the difference in incentives between debt and equity may be significant.[61]

Equity holders may prefer riskier projects because the potential payoff is higher. As the value of shares will increase with bigger payoffs, the upside to equity is larger. Similarly, losses due to limited liability are restricted to the amount invested in the firm. These create different incentives for creditors and equity holders. As Randall Kroszner and Philip Strahan explain, "Senior creditors . . . prefer that the firm undertake actions that maximize the probability of their repayment rather than maximize the expected return to shareholders."[62] This runs counter to the incentive of equity holders to maximize the shareholder value.

There are a number of distinct areas of potential conflict between debt and equity: dividend policy, equity issues and share repurchases, anti-takeover provisions, executive compensation, and restructuring activities.[63] Aneel Keswani, Ahn Tran, and Paolo Volpin found that the more troubled a firm is, the more misalignment will exist between the interests of the debtholders and shareholders—such misalignment is "magnified close to financial distress."[64] Related to this, Adam Badawi identified "evidence of increased restrictiveness

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[60] *See* Bo Becker & Per Strömberg, *Fiduciary Duties and Equity-Debtholder Conflicts*, 25 REV. FIN. STUD. 1931, 1931–32 (2012).

[61] *See generally* Mathias Dewatripont & Jean Tirole, *A Theory of Debt and Equity: Diversity of Securities and Manager-Shareholder Congruence*, 109 Q.J. ECON. 1027 (1994) (analyzing incentives for managers, shareholders, and debt holders and finding that the optimal financial structure of a firm accounts for those incentive differences to combat the moral hazard issue).

[62] Randall S. Kroszner & Philip E. Strahan, *Bankers on Boards: Monitoring, Conflicts of Interest, and Lender Liability*, 62 J. FIN. ECON. 415, 420 (2001).

[63] Aneel Keswani, Anh Tran & Paolo Volpin, *Institutional Debtholder Governance*, 56 J. FIN. QUANTITATIVE ANALYSIS 2103, 2104 (2021).

[64] *Id.* at 2105.

in the bond contracts entered into by Delaware firms relative to non-Delaware firms" and observed that "the results are particularly strong for those borrowers who are in poor financial health."[65] These different incentives suggest that creditors prefer stability.

This primer on debt versus equity sets the stage for a discussion of debt and control in the context of collusion. Because it is very difficult to observe collusion across firms, it is important to identify mechanisms through which incentives to collude, which would make collusion more likely to occur, can be identified. Understanding how debt interacts with issues of control allows one to identify such mechanisms. To do this, it is important to provide a more general overview of the debt ecosystem.

In the academic and policy conversations, the exclusive emphasis on equity and ownership in antitrust matters is surprising, as debt plays a critical role in the economy. In terms of the total capital, the global bond market's value was over $100 trillion in 2017, whereas the global equity market value was $85 trillion.[66]

In the world of debt, the financial goal of a lender in providing capital to a potential debt-holding firm is to ensure that there is a return on investment based on the payment of the principal and interest.[67] To ensure repayment, creditors

[65] Adam B. Badawi, *Debt Contract Terms and Creditor Control*, 4 J.L. FIN. & ACCT. 1, 4 (2019).

[66] George S. Dallas, *The Role of the Creditor in Corporate Governance and Investor Stewardship*, HARV. L. SCH. F. ON CORP. GOVERNANCE (Oct. 9, 2012), https://corpgov.law.harvard.edu/2019/10/09/the-role-of-the-creditor-in-corporate-governance-and-investor-stewardship/.

[67] Richard Carrizosa & Stephen G. Ryan, *Borrower Private Information Covenants and Loan Contract Monitoring*, 64 J. ACCT. & ECON. 313, 316 (2017) ("Lenders' primary goal is to ensure that they earn adequate returns on their loans.").

exert control on their borrowers through contracts.[68] This concept of control through debt contracts has been well studied in law[69] and economics.[70]

68 *See* Colleen Honigsberg, Sharon Katz & Gil Sadka, *State Contract Law and Debt Contracts*, 57 J.L. & ECON. 1031, 1033 (2014) (finding there is a market for contracts due to factors that make certain states' laws more favorable to contract under).

69 *See* STEPHEN M. BAINBRIDGE, AGENCY, PARTNERSHIPS & LLCS 28–32, 123–27 (Robert C. Clark et al. eds., 2d ed. 2014) (illustrating the ways that a lender can become a principal or partner of the borrowing firm by exercising certain degrees of control); Yesha Yadav, *The Case for a Market in Debt Governance*, 67 VAND. L. REV. 771, 774–77 (2014) (proposing that lenders should exercise control in corporate governance to optimize debt governance and motivate good behavior); Frederick Tung, *Leverage in the Board Room: The Unsung Influence of Private Lenders in Corporate Governance*, 57 UCLA L. REV. 115, 117 (2009) (discussing the importance of lender influence on corporate governance); Douglas G. Baird & Robert K. Rasmussen, *Private Debt and the Missing Lever of Corporate Governance*, 154 U. PA. L. REV. 1209, 1211–13 (2006) (examining the role of creditors in corporate governance decisions); George G. Triantis & Ronald J. Daniels, *The Role of Debt in Interactive Corporate Governance*, 83 CALIF. L. REV. 1073, 1077–78, 1080–81 (1995) (describing an interactive system of corporate governance that helps ensure lenders work toward the common goals of all shareholders); Henry T. C. Hu & Bernard Black, *Equity and Debt Decoupling and Empty Voting II: Importance and Extensions*, 156 U. PA. L. REV. 625, 728–35 (2008) (discussing commons forms of debt decoupling and their implications); Kenneth M. Ayotte & Edward R. Morrison, *Creditor Control and Conflict in Chapter 11*, 1 J. LEGAL ANALYSIS 511, 538–39 (2009) (finding that "[c]reditors dictate the dynamics of the reorganization process" through covenants or court motions); Robert K. Rasmussen, *Taking Control Rights Seriously*, 166 U. PA. L. REV. 1749, 1752–53, 1755 (2018) (assessing the allocation of control rights and how creditors exercise control).

70 *See, e.g.*, Stuart C. Gilson, *Bankruptcy, Boards, Banks, and Blockholders: Evidence on Changes in Corporate Ownership and Control When Firms Default*, 27 J. FIN. ECON. 355, 356, 365–66, 386 (1990); Michael R. Roberts & Amir Sufi, *Control Rights and Capital Structure: An Empirical Investigation*, 64 J. FIN. 1657, 1658 (2009); Dewatripont & Tirole, *supra* note 61, at 1049–50; Philippe Aghion & Patrick Bolton, *An Incomplete Contracts Approach to Financial Contracting*, 59 REV. ECON. STUD. 473, 486–90 (1992); Sudheer Chava & Michael R. Roberts, *How Does Financing Impact Investment? The Role of Debt Covenants*, 63 J. FIN. 2085, 2085–88 (2008); Greg Nini, David C. Smith & Amir Sufi, *Creditor Control Rights, Corporate Governance, and Firm Value*, 25 REV. FIN. STUD. 1713, 1715 (2012); Antonio Falato & Nellie Liang, *Do Creditor Rights Increase Employment Risk? Evidence from Loan Covenants*, 71 J. FIN. 2545, 2549 (2016); *see also* Henry T.C. Hu & Bernard Black, *Hedge Funds, Insiders, and the Decoupling of Economic and Voting Ownership: Empty Voting and Hidden (Morphable) Ownership*, 13 J. CORP. FIN. 343, 344–45, 359 (2007) (analyzing the costs and benefits of hedge funds exercising control through holding more votes than economic ownership or holding undisclosed economic ownership without votes but with the ability to acquire such votes if needed); David J. Denis & Jing Wang, *Debt Covenant Renegotiations and Creditor Control Rights*, 113 J. FIN. ECON. 348, 349 (2014) (arguing that creditors have strong *control rights* as evidenced by the renegotiation of debt covenants regardless of default); Daniel Ferreira, Miguel A. Ferreira & Beatriz Mariano, *Creditor Control Rights and Board Independence*, 73 J. FIN. 2385, 2386–87 (2018) (finding that credit agreements shape a firm's board composition, governance, and policies, particularly after a covenant violation, where there is a twenty-four percent increase in independent directors on corporate boards, most of whom have ties to creditors); Michael R. Roberts, *The Role of Dynamic Renegotiation and Asymmetric Information in Financial Contracting*, 116 J. FIN. ECON. 61, 62–63, 70–71, 77 (2015) ("[F]requent renegotiation is an integral part of bank lending. The role of renegotiation is as an ex post remedy to ex ante restrictive contracts that grant lenders strong control rights when confronted with an informational disadvantage."); Steven N. Kaplan & Bernadette A. Minton, *Appointments of Outsiders to Japanese Boards: Determinants and Implications for Managers*, 36 J. FIN. ECON. 225, 232–33, 256–57 (1994) (analyzing the factors leading to the appointment of former bank directors and corporate directors to Japanese corporations and finding that poor financial performance was the main catalyst).

By agreeing to debt contracts and the covenants therein, firms trade off increased monitoring and control for access to credit.[71] Access to financial and operational information allows creditors to better understand when borrowers may run into trouble complying with the terms of the covenants or actually violate such terms.[72] Similarly, covenants reduce moral hazards through improved monitoring.[73]

There are different types of covenants that can lead to situations of debt control, including "reducing capital expenditures, debt issuing, acquisition spending, and shareholder payouts; demanding better reporting and liquidity management; [and] pushing for the replacement of top executives."[74] According to George Triantis and Ronald Daniels, such covenants "serve as trip wires for the lender's right to accelerate and enforce or to intervene in the borrower's decisions."[75] A violation of the terms of a debt covenant allows for a direct transfer of control from the equity holder to the debtholder through an adjustment to the existing debt covenants or through the exertion of influence on the firm's decision making.[76]

This potential acceleration changes creditors' traditional bargaining leverage with the managers of a debtor firm.[77] This change in bargaining leverage leads to the renegotiation of the debt contract, which gives debtholders additional control over the firm's policy.[78] Even when there is no breach of a debt contract

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[71] *See* Douglas W. Diamond, *Financial Intermediation and Delegated Monitoring*, 51 REV. ECON. STUD. 393, 394 (1984); Eugene F. Fama, *What's Different About Banks*, 15 J. MONETARY ECON. 29, 36–37 (1985); Michael C. Jensen & William H. Meckling, *Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure*, 3 J. FIN. ECON. 305, 308 (1976).

[72] *See* Roberts & Sufi, *supra* note 70, at 1658–60 (finding that most renegotiations do not terminate the debt contract).

[73] *See* Valeri V. Nikolaev, *Scope for Renegotiation in Private Debt Contracts*, 65 J. ACCT. & ECON. 270, 272, 274 (2018); Baird & Rasmussen, *supra* note 69, at 1216–36 (discussing contract provisions that reduce uncertainty and provide incentives to businesses to perform in the best interest of all parties invested by giving a creditor significant control rights, particularly when a business is at risk of default).

[74] Yuqi Gu, Connie X. Mao & Xuan Tian, *Banks' Interventions and Firms' Innovation: Evidence from Debt Covenant Violations*, 60 J.L. & ECON. 637, 638 (2017).

[75] Triantis & Daniels, *supra* note 69, at 1093–94.

[76] *See* Ferreira et al., *supra* note 70, at 2385–86; Paul Asquith, Anne Beatty & Joseph Weber, *Performance Pricing in Bank Debt Contracts*, 40 J. ACCT. & ECON. 101, 102 (2005); Tung, *supra* note 69, at 119 ("It turns out, however, that bank creditors and other private lenders often enjoy significant oversight and influence over managerial decisions."); Raghuram Rajan & Andrew Winton, *Covenants and Collateral as Incentives to Monitor*, 50 J. FIN. 1113, 1114–15 (1995).

[77] *See* Falato & Liang, *supra* note 70; Roberts & Sufi, *supra* note 70, at 1658, 1664–66; Chava & Roberts, *supra* note 70, at 2086; Roberts, *supra* note 70, at 62–63. Debt renegotiation may occur even without a breach. *See* Denis & Wang, *supra* note 70.

[78] *See* Ferreira et al., *supra* note 70, at 2385–86; Roberts & Sufi, *supra* note 70, at 1666 ("Although the

through default, such a contract may be renegotiated, as violations rarely lead to default.[79] Instead, when default occurs, there is the option of renegotiation.[80] As such, debtholders have control over debtor firms, even without ownership and even without a contract violation.[81]

Creditors may also influence who joins the board of a firm. In their recent work, Daniel Ferreira, Miguel A. Ferreira, and Beatriz Mariano found that the number of independent directors on a board increases twenty-four percent following a debt contract violation, and that most of these new directors have ties to the creditors.[82]

Financial payoff structures work differently for debt than for equity, and this tension between debt and equity becomes clearer when firms are in distress.[83] This may have implications for antitrust. The strategic use of debt-based control by certain types of creditors that may have a debt contract with more than one company in one industry may allow such creditors to have effective control of the debtor firms without formal ownership and may give them strong incentives to engage in enough competition so that the firms' debt, plus interest, can be repaid, but not so much to maximize profit as competition across firms will threaten their returns. As the next section of this Article suggests, however, a particular type of debtholder is more likely to be able to have both the means and the motivation to use debt-based control to tacitly collude with other debtholders. As Part IV.A explains, there is no antitrust tool at present that can effectively deal with this scenario.

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allocation of control rights is an important aspect of these models, creditor 'control' does not necessarily entail creditors literally replacing managers as decision-makers."); Chava & Roberts, *supra* note 70, at 2086; Albert Choi & George Triantis, *Market Conditions and Contract Design: Variations in Debt Contracting*, 88 N.Y.U. L. REV. 51, 55, 57 (2013); Ilia D. Dichev & Douglas J. Skinner, *Large-Sample Evidence on the Debt Covenant Hypothesis*, 40 J. ACCT. RSCH. 1091, 1092–93 (2002).

79 *See* Philippe Aghion & Patrick Bolton, *An Incomplete Contracts Approach to Financial Contracting*, 59 REV. ECON. STUD. 473, 479 (1992) (analyzing incomplete contracts and how control rights can be allocated to account for this uncertainty and future renegotiation).

80 Denis & Wang, *supra* note 70, at 349.

81 *See* Baird & Rasmussen, *supra* note 69, at 1227 ("The lending agreement contains many affirmative and negative covenants that give the lender de facto control over every aspect of the business. . . . Decisions normally reserved for directors and stockholders—such as whether to sell a division, change the business plan, or replace the managers—require the lender's explicit blessing."); Denis & Wang, *supra* note 70 (identifying covenant modification in fifty-three percent of debt contracts); Roberts, *supra* note 70, at 62 (identifying more than seventy-five percent of covenant breaches leading to debt contract renegotiation); Michael R. Roberts & Amir Sufi, *Renegotiation of Financial Contracts: Evidence from Private Credit Agreements*, 93 J. FIN. ECON. 159, 160 (2009) (finding over ninety percent of credit agreements studied are renegotiated).

82 Ferreira et al., *supra* note 70, at 2386–87.

83 *See* Kroszner & Strahan, *supra* note 62, at 416 (finding that another such situation of different debt versus equity tensions in corporate governance exists when firms face risky investment decisions).

B. Hedge Funds, Private Equity, and Distressed Debt Funds

The prior section identified the ability of debtholders to exercise control over their portfolio companies through contracts. Such control is more intense and pervasive than equity institutional investors who maintain only partial ownership of their portfolio firms because the debt control mechanisms are more direct. Two types of firms are more likely to have a potential anti-competitive impact due to common debtholder control issues: distressed firms and firms in bankruptcy.

Given this backdrop, not all debt contracts may lead to potential anti-competitive harm through tacit collusion. Debt markets are usually pro-competitive. For example, hedge funds add value to the financial system through increased liquidity, and significant attempts to stymie them will cause consumer welfare loss.[84] Hedge funds tend to hold financial leverage in companies that are highly concentrated and illiquid.[85]

Similarly, private equity has several efficiency-enhancing benefits. These include the following:

> (1) [B]etter governance and a greater willingness to take risks, (2) the ability to focus on long-term issues and a more stable shareholder base, (3) the ability to attract better management talent, (4) creating a sense of urgency, (5) better use of leverage, (6) avoiding the costs imposed by the Sarbanes-Oxley Act of 2002, and (7) avoiding shareholder suits.[86]

Debt also plays an outsized role relative to equity in such firms where anti-competitive tacit collusion may be more likely. The incentive for tacit collusion to benefit the entire portfolio of funds may be significant in such firms where too much competition could lead to the bankruptcy of more firms, which would hurt the returns of the overall portfolio.

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[84] Timothy F. Geithner, President and Chief Exec. Officer, Fed. Rsrv. Bank of N.Y., Speech: Hedge Funds and Derivatives and Their Implications for the Financial System (Sept. 15, 2006) (available at www.newyorkfed.org/newsevents/speeches/2006/gei060914.html) ("In most circumstances, increased trading and participation contributes to market liquidity and makes markets less volatile. The ultimate benefit should be lower risks for all market participants.").

[85] Wei Jiang, Kai Li & Wei Wang, *Hedge Funds and Chapter 11*, 67 J. FIN. 513, 516 (2012) (finding that this provides hedge funds with increased bargaining leverage in negotiations with distressed firms).

[86] Scott J. Davis, *Would Changes in the Rules for Director Selection and Liability Help Public Companies Gain Some of Private Equity's Advantages?*, 76 U. CHI. L. REV. 83, 84–85 (2009); *see also* Ronald W. Masulis & Randall S. Thomas, *Does Private Equity Create Wealth? The Effects of Private Equity and Derivatives on Corporate Governance*, 76 U. CHI. L. REV. 219, 220–21 (2009) (describing the value creation of private equity).

In terms of ability to engage in anti-competitive conduct, distressed debt investors are involved in the governance of their targeted firms,[87] but the mere possibility of such conduct does not mean that much of the conduct of distressed firms is anything but benign. Focusing on bankrupt firms, Wei Jiang, Kai Li, and Wei Wang examined the impact of hedge funds holding debt and equity on Chapter 11 outcomes.[88] They found that hedge funds were involved in nearly ninety percent of all the bankruptcy proceedings that had taken place prior to their study.[89] They also discovered that hedge fund involvement in bankruptcy increases the likelihood of successful bankruptcy reorganization and that such involvement leads to efficiency gains rather than value extraction.[90] The explanation for this finding is that hedge funds solve the informational problem associated with agency costs. The funds paint a better picture of the debtor firm's financial situation, and such information can be used to improve the management of the firm.[91] This lender behavior is especially true for commercial lenders and borrowers.[92]

In the case of distressed debt investors, Edith Hotchkiss and Robert Mooradian observed that "[d]ebtholders also have a strong bargaining position from which to influence the terms of the restructuring since their approval is required for reorganization."[93] They also found that distressed debt funds often hold at least one-third of the outstanding amount of debt, which gives them influence with regard to the particular terms of the restructuring.[94]

While the aforementioned articles relate debt fund activity to outcomes, the issue of collusion generally has not been empirically examined by corporate finance scholars. It is true that often an entire industry is distressed, so there will clearly be gains if the firms in the industry collude, even tacitly. The empirical research on hedge funds suggests the existence of coordination that may make collusion more likely, such as communication in connection with pre-packaged

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87 Edith S. Hotchkiss & Robert M. Mooradian, *Vulture Investors and the Market for Control of Distressed Firms*, 43 J. FIN. ECON. 401, 402–03 (1997) (finding that 27.8% of the sample debtholder firms join the board of portfolio companies).

88 Jiang et al., *supra* note 85, at 513–14.

89 *Id.*

90 *Id.* at 556.

91 *See* Hotchkiss & Mooradian, *supra* note 87, at 403.

92 *See* Michael Minnis & Andrew Sutherland, *Financial Statements as Monitoring Mechanisms: Evidence from Small Commercial Loans*, 55 J. ACCT. RSCH. 197, 198, 228 (2017). *See generally* Robert M. Bushman, Abbie J. Smith & Regina Wittenberg-Moerman, *Price Discovery and Dissemination of Private Information by Loan Syndicate Participants*, 48 J. ACCT. RSCH. 921, 922 (2010) (finding that lenders' early access to information leads to faster price discovery when institutional lenders are involved in syndicated loans).

93 Hotchkiss & Mooradian, *supra* note 87, at 402.

94 *Id.*

restructurings or bankruptcy proceedings.[95] This Article discusses the mechanism of collusion occurrence suggested by previous empirical studies on debt contracting.

C. Fiduciary Duties

Fiduciary duties are a bedrock of corporate governance.[96] Directors have two primary fiduciary duties to promote the interests of shareholders: the duty of care and the duty of loyalty.[97] A critique of common ownership in antitrust literature is that members of boards of directors appointed by mutual funds based on ownership would violate their fiduciary duties if they pursued a strategy that did not maximize the interest of the shareholders.[98] Fiduciary duties generally limit the potential for anti-competitive conduct for directors and managers.[99]

From a fiduciary duty standpoint, for as long as a corporation is solvent, the fiduciary duties of the directors pertain only to the shareholders.[100] In deciding *Credit Lyonnaise Bank Nederland, N.V. v. Pathe Communications Corp.*, the Delaware Court of Chancery tried to shift fiduciary protection from equity holders to debtholders.[101] This view was overturned in *North American Catholic Education Programming Foundation v. Gheewalla*.[102] In *Gheewalla*, the

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[95] *See generally* Jongha Lim, *The Role of Activist Hedge Funds in Financially Distressed Firms*, 50 J. FIN. & QUANTITATIVE ANALYSIS 1321, 1322–23, 1344–45 (2015) (explaining the restructuring process can be hindered when multiple groups of activist hedge funds are present). This coordination on its own is not anti-competitive. *See* CompuCredit Holdings Corp. v. Akanthos Cap. Mgmt., LLC, 661 F.3d 1312, 1312–13, 1315 (11th Cir. 2011).

[96] *See generally* Stephen M. Bainbridge, *Director Primacy: The Means and Ends of Corporate Governance*, 97 NW. U. L. REV. 547, 580–82 (2003) (discussing shareholder wealth maximization effects on boards of directors' corporate governance); Lucian Arye Bebchuk, *The Case for Increasing Shareholder Power*, 118 HARV. L. REV. 833, 837–39 (2005) (discussing powers for the shareholder that would ensure boards of directors' prioritization of shareholder interest throughout management).

[97] Asaf Eckstein & Gideon Parchomovsky, *Toward a Horizontal Fiduciary Duty in Corporate Law*, 104 CORNELL L. REV. 803, 804 (2019).

[98] C. Scott Hemphill & Marcel Kahan, *The Strategies of Anticompetitive Common Ownership*, 129 YALE L.J. 1392, 1395 (2020).

[99] *See generally* Asaf Eckstein & Gideon Parchomovsky, *Toward a Horizontal Fiduciary Duty in Corporate Law*, 104 CORNELL L. REV. 803, 804 (2019) ("The duty of care requires directors and officers to exercise the level of care that a prudent person would use under similar circumstances.").

[100] *See* Jonathan C. Lipson, *Governance in the Breach: Controlling Creditor Opportunism*, 84 S. CAL. L. REV. 1035, 1036–37 (2011).

[101] *See* Credit Lyonnais Bank Nederland, N.V. v. Pathe Commc'n Corp., No. Civ. A. 12150, 1991 WL 277613, at *34 (Del. Ch. Dec. 30, 1991) ("[T]he . . . board . . . had an obligation to the community of interest that sustained the corporation, to exercise judgment in an informed, good faith effort to maximize the corporation's long-term wealth creating capacity.").

[102] N. Am. Cath. Educ. Programming Found., Inc. v. Gheewalla, 930 A.2d 92, 94 (Del. 2007) ("[T]he creditors of a Delaware corporation that is either insolvent or in the zone of insolvency have no right, as a matter of law, to assert direct claims for breach of fiduciary duty against the corporation's directors.").

Delaware Supreme Court ruled that rights for creditors against directors "would create a conflict between those directors' duty to maximize the value of the insolvent corporation for the benefit of all those having an interest in it, and the newly recognized direct fiduciary duty to individual creditors."[103] More recently, in *Quadrant Structured Products Co. v. Vertin*,[104] the Delaware Chancery Court clarified that while there is no discreet duty owed to creditors per se, there is a duty owed to the insolvent firm for the benefit of all of its residual claimants, which, upon insolvency, includes the claims of the creditors.[105]

Given that creditors do not have such fiduciary duties owed to them except in bankruptcy and insolvency settings, potential tacit collusion by creditors is not likely to be realized under either antitrust or corporate law. This fiduciary duty gap creates opportunities for creditors in distressed debt, private equity, or hedge funds who have extended credit to multiple firms in the same industry not to maximize the shareholder values of such firms, but instead to maximize the value of their entire portfolio of investments before the debtor firm is formally declared bankrupt.

The limits to the fiduciary duties owed to creditors under corporate law suggest that there is a potential gap under such law with regard to preventing debt-based tacit collusion. This gap may be significant and may provide motive for collusion.

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[103] *Id.* at 103.

[104] 115 A.3d 535 (Del. Ch. 2015).

[105] *Id.* at 546–47. This does not preclude all debt-related fiduciary duties, such as derivative shareholder suits. *Id.* Derivative suits are an important part of corporate governance. *See* John C. Coffee, Jr., *Litigation Governance: Taking Accountability Seriously*, 110 COLUM. L. REV. 288, 296, 308–09 (2010) (explaining voice-based reforms are becoming more popular in corporate governance); Reinier Kraakman, Hyun Park & Steven Shavell, *When Are Shareholder Suits in Shareholder Interests?*, 82 GEO. L.J. 1733, 1733 (1994) ("Shareholder suits are the primary mechanism for enforcing the fiduciary duties of corporate managers."); Jonathan R. Macey & Geoffrey P. Miller, *The Plaintiffs' Attorney's Role in Class Action and Derivative Litigation: Economic Analysis and Recommendations for Reform*, 58 U. CHI. L. REV. 1, 10 (1991) (explaining the shareholder's derivative suit is a corporate law device for controlling conflicts between managers and shareholders); Robert B. Thompson & Randall S. Thomas, *The Public and Private Faces of Derivative Lawsuits*, 57 VAND. L. REV. 1747, 1749–50 (2004) (predicting derivative suits will continue to play an important role in corporate governance). Even though the law in this area has been narrowed specifically to exclude the period of a firm being distressed, in reality, some amount of control may exist for purposes of governance long before bankruptcy, even for distressed firms. Jonathan C. Lipson, *Governance in the Breach: Controlling Creditor Opportunism*, 84 S. CAL. L. REV. 1035, 1036–37 (2011) (noting "real control shifts away from directors and shareholders to creditors" when a firm is in "the 'zone of distress,'" or the period during which a company falls from solvency to bankruptcy); Edward J. Janger & Adam J. Levitin, *Badges of Opportunism: Principles for Policing Restructuring Support Agreements*, 13 BROOK. J. CORP. FIN. & COM. L. 169, 170 (2018) ("In insolvency, the fiduciary duty of loyalty expands to contemplate creditors as well as shareholders . . . .").

III. ANTITRUST AND DEBT

Since the case law developments in the mid-2000s, antitrust law has played a smaller role in enforcement in regulated financial markets.[106] Yet, antitrust law can and should play an important role in monitoring the behavior of creditors when debt-control-based collusion may occur. Financial markets in distressed debt and bankruptcy, and where creditors exercise partial control, are where antitrust law and policy can play their traditional role of policing against anti-competitive behavior.

While legal scholarship has determined that debt contracting may improve consumer welfare,[107] this work does not focus on antitrust implications of debt contracts as a mechanism for control to breach consumer welfare. From the perspective of competition, the interest of debtholders may impact the structure of a given market when a firm is more troubled financially. These concerns are based on tacit collusion among certain debtholders who may have joint control over the firms in a given industry.

A. Antitrust Tacit Collusion

This section explores the issue of tacit collusion to provide a theory of harm for common control and present limits under the current doctrine to preclude such behavior. The Supreme Court has referred to collusion as "the supreme evil of antitrust."[108] Nevertheless, identifying when an illegal behavior occurs is not always very clear under Section 1 of the Sherman Act.[109]

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[106] *See* Samuel N. Weinstein, *Financial Regulations in the (Receding) Shadow of Antitrust*, 91 TEMP. L. REV. 447, 449–51 (2019); Howard Shelanski, *Antitrust and Deregulation*, 127 YALE L.J. 1922, 1940–44 (2018); Stacey L. Dogan & Mark A. Lemley, *Antitrust Law and Regulatory Gaming*, 87 TEX. L. REV. 685, 685–86 (2009); Verizon Commc'ns Inc. v. Law Offs. of Curtis V. Trinko, LLP, 540 U.S. 398, 412 (2004) (introducing small additional benefit as grounds for precluding non-conflicting antitrust claims); Credit Suisse Sec. (USA) LLC v. Billing, 551 U.S. 264, 278–79 (2007) (expanding plain repugnancy to incorporate conflict between antitrust and regulation that could arise).

[107] *See* Barry E. Adler & Marcel Kahan, *The Technology of Creditor Protection*, 161 U. PA. L. REV. 1773, 1778 (2013); Edward B. Rock, *Adapting to the New Shareholder-Centric Reality*, 161 U. PA. L. REV. 1907, 1930 (2013); George Triantis, *Exploring the Limits of Contract Design in Debt Financing*, 161. U. PA. L. REV. 2041, 2043 (2013).

[108] *Verizon Commc'ns*, 540 U.S. at 408.

[109] *See* Louis Kaplow, *On the Meaning of Horizontal Agreements in Competition Law*, 99 CALIF. L. REV. 683, 688 (2011) (discussing § 1 of the Sherman Act and the lack of judicial authority lending guidance as to its application).

The easiest agreements to prosecute are express agreements with direct evidence of wrongdoing.[110] Where there is such an agreement, antitrust law condemns such behavior by imposing not only civil penalties but also criminal penalties resulting in considerable jail time.[111] This notwithstanding, much of the legal difficulty with regard to antitrust law concerns determining (1) if an anti-competitive action has been done in the absence of an express agreement, and (2) what factors to consider in determining if an agreement exists that moves from purely legal tacit collusion to illegal tacit collusion (also referred to as tacit agreement).[112] Thus, under Section 1 of the Sherman Act, the causal mechanisms for tacit collusion, beyond mere structural incentives, are difficult to prove for purposes of establishing antitrust liability.[113]

This limitation on tacit agreement is longstanding and can be traced as far back as *Theatre Enterprises, Inc. v. Paramount Film Distribution Corp.* in 1954,[114] perhaps with antecedents in *United States v. U.S. Steel Corp.*[115] and *Eastern States Retail Lumber Dealers' Association v. United States*,[116] under which case law has not made it possible to establish that mere parallel conduct constitutes an antitrust violation.[117]

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[110] *See* Mark Anderson & Max Huffman, Iqbal*,* Twombly*, and the Expected Cost of False Positive Error*, 20 CORNELL J.L. & PUB. POL'Y 1, 31 (2010).

[111] *See* Vivek Ghosal & D. Daniel Sokol, *The Rise and (Potential) Fall of U.S. Cartel Enforcement*, 2020 U. ILL. L. REV. 471, 472–73, 475 (2020).

[112] See 6 PHILLIP E. AREEDA & HERBERT HOVENKAMP, ANTITRUST LAW: AN ANALYSIS OF ANTITRUST PRINCIPLES AND THEIR APPLICATION 114–15 (4th ed. 2017) ("Parallel behavior by competitors might reflect a conspiracy among them. . . . Of particular importance [are] the specification of the agreeing parties and their subject matter, conspiratorial motivation, and the critical distinction between agreement in some traditional sense and mere tacit coordination through recognized interdependence."); William H. Page, *Tacit Agreement Under Section 1 of the Sherman Act*, 81 ANTITRUST L.J. 593, 593–98 (2017).

[113] Collusion may not be solely horizontal but perhaps a mix of horizontal and vertical as well. For example, a firm can get around corporate governance requirements of board approval for a purchase of more than, say, five percent of ownership of a new company by simply using debt instead of equity. In an ideal world, this might include debt contracts within the same industry so that the firm can better dictate terms, for example, to more than one supplier or customer (more hub and spoke collusion that has both horizontal and vertical elements), or two pure horizontal firms in the same industry to allow for tacit collusion.

[114] 346 U.S. 537, 537, 540–41 (1954).

[115] 251 U.S. 417, 440–42 (1920) ("The contentions of the case, therefore, must be judged by the requirements of the law, not by accidental or adventitious circumstances.").

[116] 234 U.S. 600, 608–09, 612–13 (1914) (explaining that to show a conspiracy under the Sherman Act some agreement must be shown under which the concerted action was taken).

[117] Kovacic & Shapiro, *supra* note 10, at 50 ("After toying with the possibility of treating oligopolistic interdependence as a form of agreement, the Supreme Court [ruled in *Theatre Enterprises*] that proof of 'conscious parallelism,' without more, could not . . . establish an antitrust violation."); Sean P. Sullivan, *Anticompetitive Entrenchment*, 68 U. KAN. L. REV. 1133, 1152 (2020). One might argue, as the Areeda & Hovenkamp antitrust treatise does, that *Theater Enterprises* did not actually roll back the earlier case law of *Interstate Circuit, Inc. v. United States* regarding the meaning of tacit collusion. *See* AREEDA & HOVENKAMP,

While several professors suggest ways to improve the reach of antitrust law to address tacit collusion under Section 1 of the Sherman Act, the courts' efforts to create doctrinal coherence in the area have proven to be limited.[118] Typically, therefore, the courts require plus factors to determine antitrust liability for tacit collusion.[119] Due to the lack of clarity as to which plus factors prove tacit agreement, the law of tacit collusion is at best inconsistent. Overall, it is difficult to win cases alleging tacit collusion to engage in anti-competitive behavior.

Certainly, courts can make pure tacit collusion illegal without any sort of communication requirement, as Louis Kaplow suggests.[120] Edward Rock and Daniel Rubinfeld provide an example of the majority view of why mere tacit collusion should not be the legal standard.[121] The concern is one of legal administrability, given the ambiguous effects of tacit collusion.[122] They note that "it is impracticable to write or enforce an [injunction] enjoining firms not to take competitors into account when competitors will inevitably respond."[123] Case law

supra note 112, at 210. In *Interstate Circuit*, the critical fact was the common invitation, which is a form of private communication. Interstate Cir., Inc. v. United States, 306 U.S. 208, 227 (1939). Nevertheless, numerous recent cases suggest the limits of antitrust's ability to remedy tacit collusion related concerns. *See, e.g.*, Valspar Corp. v. E.I. Du Pont De Nemours & Co., 873 F.3d 185, 191–96 (3d Cir. 2017) (stating the rule that conscious parallelism is "beyond the reach of antitrust laws" and concluding that evidence of "31 parallel price increase announcements" failed to prove more than the "mere interdependence" of competitors); *In re* Text Messaging Antitrust Litig., 782 F.3d 867, 871–77 (7th Cir. 2015) (affirming summary judgment for defendants on a record "consistent with tacit as well as express collusion," in part because "the fewer the firms, the easier it is for them to engage in 'follow the leader' pricing . . . which means coordinating their pricing without an actual agreement to do so"); Williamson Oil Co. v. Philip Morris USA, 346 F.3d 1287, 1291 (11th Cir. 2003) (affirming a district court holding that "[cigarette] manufacturers' pricing behavior evidenced nothing more than 'conscious parallelism,' a perfectly legal phenomenon commonly associated with oligopolistic industries" when appellants could not produce sufficient evidence tending to exclude the possibility of independent action); *In re* Graphics Processing Units Antitrust Litig., 527 F. Supp. 2d 1011, 1011, 1014–17 (N.D. Cal. 2007) (finding defendants' participation in thirty industry conferences insufficient); Thompson Everett, Inc. v. Nat'l Cable Advert. L.P., 57 F.3d 1317, 1319–20 (4th Cir. 1995). This is not to argue that a finding based on mere tacit collusion without sufficient plus factors is incorrect. *See* Anderson & Huffman, *supra* note 110, at 30–31, 34–35 (explaining the possibility of false positives when proving agreement).

118 *See* Wentong Zheng, *A Knowledge Theory of Tacit Agreement*, 9 HARV. BUS. L. REV. 399, 401 (2019); Page, *supra* note 112, at 621–22 (describing *Interstate Circuit* as an exemplar of tacit agreement).

119 *See* William E. Kovacic, Robert C. Marshall, Leslie M. Marx & Halbert L. White, *Plus Factors and Agreement in Antitrust Law*, 110 MICH. L. REV. 393, 399, 405 (2011).

120 *See* LOUIS KAPLOW, COMPETITION POLICY AND PRICE FIXING 55–56 (2013). Kaplow's theory builds upon Richard Posner, *Oligopoly and the Antitrust Laws: A Suggested Approach*, 21 STAN. L. REV. 1562 (1969). *See* KAPLOW, *supra*, at xv.

121 *See* Rock & Rubinfeld, *supra* note 21, at 206–07, 209.

122 *Id.*

123 *Id.* at 207.

such as *Matsushita Electric Industrial Co. v. Zenith Radio Corp.* and *Bell Atlantic Corp. v. Twombly* supports such resistance to mere parallel conduct.[124]

Given how increased concentration may effectively create tacit collusion by oligopolists, or even legal tacit collusion, one antitrust critique of the growing concentration in certain industries is that it leads to higher prices.[125] From an enforcement standpoint, what is critical with regard to growing concentration is that, considering the difficulty of proving the existence of tacit agreement, it has implications for the design of antitrust enforcement and for addressing potential anti-competitive activity by debtholders. The more concentrated the industry, and thus the fewer the firms operating in each market, the easier it is to tacitly collude.[126]

Several factors make debt markets more prone to collusive behavior, but coordination among bondholders by itself does not give rise to a successful Section 1 claim.[127] The following different mechanisms of tacit collusion, without additional factors, will not lead to a viable Sherman Act Section 1 claim: (1) multimarket contact, (2) signaling through disclosures, (3) signaling through bankruptcy filings, (4) "learning by doing," and (5) executive compensation. Each is discussed in further detail below.

1. *Multimarket Contact*

Multimarket contact suggests that the more extensive the overlap across firms in a market, the larger the benefits of collusion will be.[128] The strength of the multimarket contact across an industry provides a mechanism through which

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[124] *See* Matsushita Elec. Indus. Co. v. Zenith Radio Corp., 475 U.S. 574, 588 (1986) ("To survive a motion for summary judgment or for a directed verdict, a plaintiff seeking damages for a violation of § 1 must present evidence 'that tends to exclude the possibility' that the alleged conspirators acted independently." (quoting Monsanto Co. v. Spray-Rite Service Corp., 465 U.S. 752, 764 (1984))); Bell Atl. Corp. v. Twombly, 550 U.S. 544, 556 (2007); *see also* Donald F. Turner, *The Definition of Agreement Under the Sherman Act: Conscious Parallelism and Refusals to Deal*, 75 HARV. L. REV. 655, 681 (1962) ("'[I]ndependent' decision meaning a decision that would have been taken regardless of what competitors decided to do.").

[125] *See* Carl Shapiro, *Antitrust in a Time of Populism*, 61 INT'L J. INDUS. ORG. 714, 738 (2018) ("Merger enforcement is especially important since a wide range of interdependent conduct by oligopolists, i.e., conduct whereby the oligopolists refrain from vigorous competition, is not considered to be illegal if it does not involve an agreement among those oligopolists.").

[126] *See* Miguel A. Fonseca & Hans-Theo Normann, *Explicit vs. Tacit Collusion—The Impact of Communication in Oligopoly Experiments*, 56 EUR. ECON. REV. 1759, 1765 (2012).

[127] *See* United Airlines, Inc. v. U.S. Bank N.A., 406 F.3d 918, 918–19 (7th Cir. 2005) ("No wonder that the second circuit has described as 'bordering on the frivolous' a contention that the antitrust laws forbid creditors to coordinate their positions in bankruptcy.").

[128] *See* B. Douglas Bernheim & Michael D. Whinston, *Multimarket Contact and Collusive Behavior*, 21 RAND J. ECON. 1, 2–4 (1990).

firms can make collusion more likely.[129] Empirical studies across industries such as airlines,[130] audit firms,[131] cement,[132] and telecommunications[133] found that the greater the multimarket contact within an industry, the greater the propensity for tacit collusion. The same mechanism may be at play within certain debt markets. Across particular industries, there is a set of repeat players among the creditors involved in lending either to distressed firms or to firms in bankruptcy. A theoretical study suggested that debt syndication (which is a repeat-player industry) is another possible mechanism of collusion.[134]

2. *Signaling Through Disclosure*

Increased disclosure of information across firms with higher horizontal shareholding levels makes it easier for firms to coordinate with each other.[135] Collusion is usually difficult to maintain because the incentives to cheat may be strong.[136] That is, firms must successfully coordinate their prices and outputs to collude with each other.[137] Disclosure reduces opacity, which makes it easier to monitor cheating.[138] Thomas Bourveau, Guoman She, and Alminas Žaldokas found that as cartel enforcement picked up in the 1990s, U.S.-listed firms began sharing more details in their financial disclosures about such business issues as the names of their customers and their contracts and products.[139] This

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[129] *See id.*

[130] Federico Ciliberto & Jonathan W. Williams, *Does Multimarket Contact Facilitate Tacit Collusion? Inference on Conduct Parameters in the Airline Industry*, 45 RAND J. ECON. 764, 764–65 (2014).

[131] Simon Dekeyser, Ann Gaeremynck, W. Robert Knechel & Marleen Willekens, *Multimarket Contact and Mutual Forbearance in Audit Markets*, 59. J. ACCT. RSCH. 1651 (2021).

[132] *See* Ivette Jans & David I. Rosenbaum, *Multimarket Contact and Pricing: Evidence from the U.S. Cement Industry*, 15 INT'L J. INDUS. ORG. 391, 392, 406–07 (1996).

[133] Meghan R. Busse, *Multimarket Contact and Price Coordination in the Cellular Telephone Industry*, 9 J. ECON. & MGMT. STRAT. 287, 294, 296–97 (2000).

[134] *See* John William Hatfield, Scott Duke Kominers, Richard Lowery & Jordan M. Barry, *Collusion in Markets with Syndication*, 128 J. POL. ECON. 3779, 3780–81 (2020).

[135] *See* Andrea Pawliczek & A. Nicole Skinner, Common Ownership and Voluntary Disclosure 1, 5, 9 (June 8, 2018) (unpublished manuscript) (available at https://ssrn.com/abstract=3002075); Jihwon Park, Jalal Sani, Nemit Shroff & Hal White, *Disclosure Incentives When Competing Firms Have Common Ownership*, 67 J. ACCT. & ECON. 387, 391 (2019).

[136] *See* George J. Stigler, *A Theory of Oligopoly*, 72 J. POL. ECON. 44, 44 (1964); Edward J. Green & Robert H. Porter, *Noncooperative Collusion Under Imperfect Price Information*, 52 ECONOMETRICA 87, 87 (1984). *See generally* Margaret Levenstein & Valerie Suslow, *Cartels and Collusion: Empirical Evidence*, *in* 2 OXFORD HANDBOOK OF INTERNATIONAL ANTITRUST ECONOMICS, *supra* note 32 (highlighting that academic literature has historically "focused on cheating as the most significant challenge to cartels").

[137] Margaret C. Levenstein & Valerie Y. Suslow, *What Determines Cartel Success*, 44 J. ECON. LITERATURE 43, 44–45 (2006) (explaining that cartels restrict output and increase price to maximize profits).

[138] Thomas Bourveau, Guoman She & Alminas Žaldokas, *Corporate Disclosure as a Tacit Coordination Mechanism: Evidence from Cartel Enforcement Regulations*, 58 J. ACCOUNT. RSCH. 295, 296 (2020).

[139] *Id.* at 299.

information exchange created legal tacit collusion through the reduction of information costs.[140] In another empirical study, Gaurab Aryal, Federico Ciliberto, and Benjamin T. Leyden identified tacit collusion by signaling to competitors in analyst calls.[141]

This empirical work on the disclosure of information to stabilize cartels builds upon earlier insights on how more information about rival firms strengthens collusion.[142] This particularly holds when the same firms interact on a repeat basis.[143] This insight suggests a mechanism for information disclosure for a subset of debtholder-related information. Specifically, creditors can signal information about their competitive positions in public documents to their rival creditors.

These mechanisms may have both pro- and anti-competitive results. In a recent article, Richard Carrizosa and Stephen Ryan identified two types of information specified in debt covenants: "(1) projected financial statements for future periods . . . and (2) more frequent than quarterly (usually monthly) and not yet publicly available historical financial statements."[144] They found that debt covenants indeed provide lenders with important information about the borrowers, which the lenders in turn use for their commercial advantage.[145]

On the pro-competitive side, such information exchange allows for better monitoring of debtholders by lenders. This may include greater efficiency in loan renegotiation and an opportunity to trade on such information.[146] On the anti-competitive side, such mechanisms may allow for better coordination on price when the lender has interests in more than one firm in the same industry.[147]

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[140] *Id.* at 303; Gaurab Aryal, Federico Ciliberto & Benjamin T. Leyden, *Coordinated Capacity Reductions and Public Communication in the Airline Industry* 3 (CESifo, Working Paper No. 8115, 2021).

[141] *See generally* Aryal et al., *supra* note 140 (highlighting that firms may use unverifiable and non-binding communication to sustain collusion).

[142] *See* Joseph E. Harrington, Jr. & Andrzej Skrzypacz, *Collusion Under Monitoring of Sales*, 38 RAND J. ECON. 314, 315 (2007); Susan Athey & Kyle Bagwell, *Optimal Collusion with Private Information*, 32 RAND J. ECON. 428, 429 (2001); Green & Porter, *supra* note 136, at 88.

[143] *See* Joseph E. Harrington, Jr. & Wei Zhao, *Signaling and Tacit Collusion in an Infinitely Repeated Prisoners' Dilemma*, 64 MATHEMATICAL SOC. SCI. 277, 277–78 (2012).

[144] Carrizosa & Ryan, *supra* note 67, at 314.

[145] *Id.* at 336.

[146] *Id.* at 314.

[147] *Id.* This information may create significant hold-up problems that benefit the lender over the borrower.

3. *Signaling Through Bankruptcy Filings*

By its nature, bankruptcy requires coordination across firms.[148] This is not to suggest that much of this coordination is anti-competitive; rather, there are legal means through which firms can potentially tacitly collude that a Sherman Act Section 1 case may not capture. In turn, if there is a series of industry-wide bankruptcies, filings in a number of different bankruptcies will help create a mechanism in which tacit collusion is more likely to be effective.

Because transparency may help solve information asymmetries across firms, it makes tacit collusion easier to sustain. Thus, for purposes of collusion, the high costs associated with private communication make the possibility of public communication increasingly appealing. Public bankruptcy filings help solve a basic problem with collusion. Court dockets for bankruptcy filings allow creditors who may have positions in more than one firm in the industry to shift information from private to public communication, which allows for increased tacit collusion.[149]

In two doctrinal areas, the courts have allowed certain behaviors that may lead to legal tacit collusion in bankruptcy.[150] First, *Noerr-Pennington* immunity—a doctrine involving coordination to petition the government—applies in the bankruptcy context.[151] Second, courts have recognized that information sharing has pro-competitive purposes in the bankruptcy antitrust setting.[152] Judge Easterbrook's opinion in *United Airlines v. U.S. Bank N.A.* provides one example for both of these settings. Judge Easterbrook explained the following:

> Negotiating discounts on products *already* sold at competitive prices is not a form of monopolization. Negotiations on reductions to be taken in bankruptcy, when the buyer cannot pay all of its debts, are common and lawful, under the *Noerr–Pennington* doctrine if nothing else. True, the *Noerr–Pennington* doctrine cannot be used to shelter joint activity

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[148] *See* Douglas G. Baird & Thomas H. Jackson, *Corporate Reorganizations and the Treatment of Diverse Ownership Interests: A Comment on Adequate Protection of Secured Creditors in Bankruptcy*, 51 U. CHI. L. REV. 97, 105–07 (1984).

[149] *See generally* ORGANISATION FOR ECONOMIC COOPERATION AND DEVELOPMENT, UNILATERAL DISCLOSURE OF INFORMATION WITH ANTICOMPETITIVE EFFECTS (2012), www.oecd.org/daf/competition/Unilateraldisclosureofinformation2012.pdf (suggesting that there may be pro- and anti-competitive effects of greater price transparency).

[150] *See* United Airlines, Inc. v. U.S. Bank N.A., 406 F.3d 918, 919 (7th Cir. 2005) (holding that the lessors did not violate antitrust laws).

[151] *Id. See generally* Marina Lao, *Reforming the Noerr-Pennington Antitrust Immunity Doctrine*, 55 RUTGERS L. REV. 965 (2003) (providing an overview and critique of the doctrine).

[152] *Id.*

> that creates monopoly prices independent of any decision by a court or agency. But collaboration among creditors to formulate a position about how much of a haircut to accept has no effect unless the court approves the restructuring.[153]

More recently, limits to robust antitrust enforcement among funds emerged when CompuCredit Holdings Corporation sued twenty-one hedge funds.[154] These hedge funds collectively held seventy percent of the bonds that CompuCredit had issued five years earlier.[155] CompuCredit unsuccessfully alleged that these hedge funds had been part of a conspiracy to refuse accepting a tender offer that CompuCredit made to repurchase these bonds.[156] The analytical reasoning behind the decision was rudimentary, but the allegations suggest a mechanism through which bondholders may be able to collude with each other.[157]

4. *Learning by Doing*

Knowledge within and across firms may develop through "learning by doing," which is experiential learning within the firm.[158] If effectively exploited, learning by doing can improve firm outcomes.[159] Collusion may also function within a learning-by-doing framework, with the collusive outcomes of similar product patterns being easier to sustain than those of newer products.[160]

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153 *Id.* (citations omitted).

154 CompuCredit Holdings Corp. v. Akanthos Capital Mgt., LLC, 661 F.3d 1312, 1313–14 (11th Cir. 2011).

155 *Id.* at 1314.

156 *Id.* at 1312.

157 Within debt, perhaps a better example than bonds is private debt. Bonds by nature are of course typically tradeable, and bond covenants are much looser because of collective action costs. In contrast, private debt exerts a much tighter leash on borrowers because of the relatively small size of lending syndicates as compared to bond offerings, which may involve hundreds of dispersed bondholders. Private bank loans involve tight covenants, direct contracting, and regular monitoring.

158 *See* LINDA ARGOTE, ORGANIZATIONAL LEARNING: CREATING, RETAINING AND TRANSFERRING KNOWLEDGE 197–99 (1999); Roger D. Blair, Christine S. Wilson, D. Daniel Sokol, Keith Klovers & Jeremy A. Sandford, *Analyzing Vertical Mergers: Accounting for the Unilateral Effects Tradeoff and Thinking Holistically About Efficiencies*, 27 GEO. MASON L. REV. 761, 776–77 (2020).

159 *See* Blair et al., *supra* note 158, at 777 (citing William Mitchell, J. Myles Shaver & Bernard Yeung, *Foreign Entrant Survival and Foreign Market Share: Canadian Companies' Experience in United States Medical Sector Markets*, 15 STRAT. MGMT. J. 555, 565 (1994)).

160 Danial Asmat, *Collusion Along the Learning Curve: Theory and Evidence from the Semiconductor Industry* 1 (Econ. Analysis Group, Working Paper No. 16-4, 2019) (available at https://www.justice.gov/atr/collusion-along-learning-curve-theory-and-evidence-semiconductor-industry) (hypothesizing that collusion is more effective in older product generations than newer ones).

Debt covenant terms are oftentimes similar in their language.[161] The value of increased uniformity in contracts is that a similar template reduces the transaction costs.[162] Such contracts also reduce litigation costs because certain contractual terms have greater legal certainty.[163]

Homogenous contracts, with repeat players among the lenders and the law firms drafting the agreements, may provide various signals across lenders with regard to the nature of control that each lender may have for a debt contract. There is extensive literature suggesting that many debt contracts are based on boilerplate language.[164] Similarly, many terms tend to get used time and time again by the same creditor or underwriter.[165] This product homogenization makes it easier for lenders to tacitly collude with each other, where they may jointly exercise control over the production function of more than one firm in the same industry over time within a learning-by-doing framework.[166] Much of the contracting is done with private ordering. Relational contracting among regular industry players makes the debt community a relatively small and tight community of repeat players.[167]

5. *Executive Compensation*

Executive compensation may be a mechanism of reinforcing collusion.[168] A recent study suggests that executive compensation and the use of executive compensation consultants within the same product market can make tacit

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161 *See* Gus De Franco, Florin P. Vasvari, Dushyantkumar Vyas & Regina Wittenberg-Moerman, *Similarity in the Restrictiveness of Bond Covenants*, 29 EURO. ACCT. REV. 665, 665 (2020).

162 *See* Jason Scott Johnston, *The Return of Bargain: An Economic Theory of How Standard-Form Contracts Enable Cooperative Negotiation Between Businesses and Consumers*, 104 MICH. L. REV. 857, 884–85 (2006); Robert A. Hillman & Jeffrey J. Rachlinski, *Standard-Form Contracting in the Electronic Age*, 77 N.Y.U. L. REV. 429, 437–38 (2002).

163 *See* Marcel Kahan & Michael Klausner, *Standardization and Innovation in Corporate Contracting (or the "Economics of Boilerplate")*, 83 VA. L. REV. 713, 722 (1997); Albert Choi & George Triantis, *Market Conditions and Contract Design: Variations in Debt Contracting*, 88 N.Y.U. L. REV. 51, 52 (2013).

164 *See* Kahan & Klausner, *supra* note 163 at 715; W. Mark C. Weidemaier, *Disputing Boilerplate*, 82 TEMPLE L. REV. 1, 2 (2009).

165 *See* De Franco et al., *supra* note 161, at 671–72.

166 *See* George A. Hay & Daniel Kelley, *An Empirical Survey of Price Fixing Conspiracies*, 17 J.L. & ECON. 13, 15 (1974); Stigler, *supra* note 136.

167 *See* Charles K. Whitehead, *The Evolution of Debt Covenants, the Credit Market, and Corporate Governance*, 34 J. CORP. L. 641, 652 (2009); Douglas W. Diamond, *Monitoring and Reputation: The Choice Between Bank Loans and Directly Placed Debt*, 99 J. POL. ECON. 689, 713, 716 (1991). Lawyers representing these firms, by extension, also tend to be repeat players and may lead to information leakage and collusion across lenders or borrowers.

168 *See* Antón et al., *supra* note 50, at 2–3. *But see* Erik P. Gilje, Todd A. Gormley & Doron Levitt, *Paying Attention? Measuring Common Ownership and Its Impact on Managerial Incentives*, 137 J. FIN. ECON. 152, 154 (2020) ("[O]wnership overlap is a necessary but insufficient condition for shifting managerial incentives.").

collusion more likely.[169] That is, the use of relative performance benchmarking of firms within the same industry seems to make tacit collusion more likely.[170] The same study also found that tacit agreement through the use of equity contracts for executives could extend the time horizon of potential cartel members.[171] Even if debtholders do not formally control the firms, they may use incentive-based contracts for the executives they will place within the firms.[172] Calibrating the compensation scheme for executives within the same industry to the same level may encourage increased coordination through tacit collusion.[173]

B. *The Particular Roles of Hedge Funds, Private Equity Firms, and Distressed Debt Lenders in Collusion*

The strategy of hedge funds in corporate governance has received increasing academic attention.[174] Hedge funds can be divided into two different types: those that use debt and those that do not.[175] Marcel Kahan and Edward Rock explain the following:

> Unlike traditional investors, activist hedge funds look for bonds where companies have violated, have arguably violated, or are about to violate some contractual provisions; buy up a large quantity of the issue; and then aggressively enforce their rights. Hedge funds have been able to greatly ameliorate the historic underenforcement problem because they have the sophistication to detect potential violations, the financial resources to acquire substantial amounts of a single bond issue, and the willingness to take on issuers; perhaps most importantly, they have decided to pursue, and become experienced in pursuing, this strategy.[176]

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169 *See* Sangeun Ha, Fangyuan Ma & Alminas Žaldokas, *Motivating Collusion* 1–2 (HKUST Bus. Sch. Ctr. for Econ. Pol'y, Working Paper No. 2021-08, 2021) (available at https://cep.hkust.edu.hk/sites/cep.prod01.ust.hk/files/publications_media/full_paper/WP%202021-08_0.pdf).

170 *See id.* at 10.

171 *Id.* at 19–20.

172 *Cf. id.* at 10 (suggesting the role that performance benchmarking can make in motivating collusion).

173 *Id.* at 15–16.

174 *See generally* Colleen Honigsberg, *Hedge Fund Regulation and Fund Governance: Evidence on the Effects of Mandatory Disclosure Rules*, 57 J. ACCT. RSCH. 845, 848 (2019) (contributing to the academic literature by explaining inconsistencies and focusing on the effects of the disclosure rules); Marcel Kahan & Edward B. Rock, *Hedge Funds in Corporate Governance and Corporate Control*, 155 U. PA. L. REV. 1021, 1026 (2007) (adding to the modern academic literature about hedge fund activism).

175 For a more nuanced discussion of hedge fund leverage, see generally Andrew Ang, Sergiy Gorovyy & Gregory B. van Inwegen, *Hedge Fund Leverage*, 102 J. FIN. ECON. 102 (2011).

176 Marcel Kahan & Edward Rock, *Hedge Fund Activism in the Enforcement of Bondholder Rights*, 103 NW. U. L. REV. 281, 283 (2009).

In the common ownership literature, there is a concern that index funds are likely to be more pro-management than side with activist investors.[177] On the debt side, however, common control works in the opposite direction: debt is an instrument often used by hedge funds and other funds that want to reshape the board.

The lack of transparency in debt markets makes the possible severity of the common debt and collusion problem difficult to quantify. Private investors often conceal their identities and the investment strategies that they employ.[178] Such investors may also behave strategically.[179]

Coordinated behavior across hedge funds is already a part of corporate governance. John Coffee and Darius Palia explain the following:

> [A] leading cause of increased hedge fund activism appears to be the development of a new activist tactic: namely, the formation of the hedge fund "wolf pack" that can take collective (or, at least, parallel) action without legally forming a "group" for purposes of the federal securities laws (which would trigger an earlier disclosure obligation).[180]

One aspect of the "wolf pack" is that its membership is not known. That is, unless there is an affirmative declaration of the group members, they will not be known unless they meet the SEC reporting threshold of five percent.[181] As there is a small number of repeat players and limited relational contracting matter, there may be legal tacit collusion signals akin to a "wolf pack" between the partial controllers of debt funds.

The case that best identifies how hedge funds may use tacit collusion to change corporate governance and the business strategy of a particular firm is *Third Point LLC v. Ruprecht*.[182] However, the mechanism at play in this case also suggests a more general antitrust angle with regard to bondholder communication across firms in the same industry.

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177 *See* Matthew Backus, Christopher Conlon & Michael Sinkinson, *The Common Ownership Hypothesis: Theory and Evidence* 1, 3 (Econ. Stud. at Brookings, Working Paper, 2019) (available at https://www.brookings.edu/wp-content/uploads/2019/02/ES_20190205_Common ownership.pdf).

178 *See* Jonathan Lipson, *The Shadow Bankruptcy System*, 89 B.U. L. REV. 1609, 1615 (2009).

179 *See id.* at 1617.

180 John C. Coffee, Jr. & Darius Palia, *The Wolf at the Door: The Impact of Hedge Fund Activism on Corporate Governance*, 41 J. CORP. L. 545, 550 (2016).

181 *Id.* at 562.

182 C.A. Nos. 9469, 9497, 9508, 2014 WL 1922029 (Del. Ch. May 2, 2014).

In *Third Point*, the hedge fund Third Point LLC made it known publicly that it was purchasing shares of Sotheby's stock through its filings with the SEC.[183] In its amended Schedule 13D filing, Third Point indicated that it had increased its stake in Sotheby's to 9.4% and that it would seek changes in management and the board.[184] Consequently, Sotheby's board adopted a rights plan and a trigger of 10% ownership for Schedule 13D filers and 20% for all other shareholders (Schedule 13G filers).[185] Then Third Point amended its Schedule 13D to note an increase in its ownership stake closer to the 10% trigger of the rights plan.[186] It also announced in its amended filing that it intended to nominate three directors.[187]

After it commenced a formal proxy fight, Third Point requested that Sotheby's waive the 10% cap so that Third Point would acquire an ownership stake in Sotheby's of up to 20% of the common stock.[188] The Sotheby's board rejected Third Point's request after they assessed that Third Point was likely to win the proxy contest if it acquired an additional 10% of the common stock of Sotheby's.[189]

While the case before the Chancery Court revolved around whether the threat was cognizable under *Unocal Corp. v. Mesa Petroleum Co.*,[190] for purposes of this Article, the critical fact is that a very low ownership stake can exercise an outsized voice in corporate governance because it can signal to the other activist shareholders to operate jointly in a proxy contest.

The opinion explained the mechanism by which signals through filings would alert other activists about how to tacitly coordinate as to strategy. The court illustrated this by describing a meeting of the board and its advisors:

> [T]he Board was informed that stockholder activism levels were "high," at least in part because of activists' prior successes in waging proxy contests. The presentation also contained a slide titled "Activist Investor Tactics Typically Follow a Familiar Pattern." According to the presentation, this pattern usually consists of activists building a stake in an entity, individually *or by teaming up with other institutional*

183 *Id.* at *3.
184 *Id.* at *9.
185 *Id.* at *10.
186 *Id.* at *12.
187 *Id.*
188 *Id.*
189 *Id.* at *12–14.
190 493 A.2d 946, 954 (Del. 1985) (holding that when a board addresses a pending takeover, it has an obligation to protect the best interests of the corporation and the shareholders).

> *or activist stockholders to form a "wolf pack," applying pressure on the entity, including threatening to agitate against a board's preferred strategic alternatives, and finally taking action against the board by threatening "withhold the vote" campaigns, demanding board seats, launching a short-slate proxy contest, or making aggressive use of derivatives*.[191]

Thus, even with a small share of equity, Third Point could signal to other activists and consequently transform the very business strategy of Sotheby's.

An empirical study showed that corporate disclosure could allow for increased collusion among firms.[192] Public disclosure serves as a mechanism for firms to relay information to each other, which reduces the information asymmetries across firms and lowers the monitoring costs.[193] This in turn may facilitate tacit collusion.[194] The collusive mechanism for debt-based collusion may be bankruptcy filings or press releases.

IV. POSSIBLE SOLUTIONS

A. *Modification of Antitrust Merger Law*

As it is difficult to prove tacit agreement under Section 1 of the Sherman Act, a more effective mechanism of addressing debt control collusion is through the merger process under Section 7 of the Clayton Act. Section 7 is a more effective mechanism for four main reasons. First, Section 7 of the Clayton Act is superior to Section 1 of the Sherman Act with respect to establishing liability. Section 1 of the Sherman Act does not condemn conscious parallelism, but conscious parallelism can have all the negative consequences of explicit price collusion.[195] In contrast, Section 7 of the Clayton Act can condemn a transaction that increases the likelihood of conscious parallelism even though such parallelism does not violate Section 1 of the Sherman Act.[196] Thus Section 7 of the Clayton Act can prevent anti-competitive conduct that Section 1 of the Sherman Act does not address. Second, Section 7 of the Clayton Act is superior to Section 1 of the Sherman Act Section with respect to remedies. Section 7 of

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191 *Third Point*, 2014 WL 1922029 at *1, *5 (emphasis added).

192 Bourveau et al., *supra* note 138.

193 Andrea Pawliczek, A. Nicole Skinner & Sarah L. C. Zechman, Facilitating Tacit Collusion: A New Perspective on Common Ownership and Voluntary Disclosure 1–2 (May 3, 2019) (unpublished manuscript) (on file at https://ssrn.com/abstract=3382324).

194 *Id.*

195 *See* 15 U.S.C. § 1.

196 *See id.* § 18.

the Clayton Act is geared toward enjoining or undoing transactions while Section 1 of the Sherman Act is less so.[197] Third, Section 7 of the Clayton Act is superior to Section 1 of the Sherman Act with respect to identifying problematic transactions. Merger law already has a reporting requirement. Although the Hart-Scott-Rodino (HSR) Act does not currently reach debt transactions (except convertible debt when there is conversion into equity), it can be easily modified to include such transactions, or at least more easily than under Section 1 of the Sherman Act, which has no similar established reporting mechanism.[198] Fourth and finally, the nature of the problem is typically not one of hub and spoke under Section 1 of the Sherman Act involving vertical firm issues for which other types of antitrust collusion solutions may work.[199] Rather, debt-based collusion is about financing, which affects the firm's budget constraints rather than its production function.

The basic premise regarding using Section 7 of the Clayton Act to limit the coordinated effects is that the fewer the number of firms in a given market, the easier it is to collude.[200] This theoretical insight has made its way into the dicta of a number of cases.[201] The *Heinz* case warns about the dangers of coordinated effects,[202] but most of the merger challenges brought in the courts focus on unilateral effects.[203] Thus, including debt-based merger control also has the benefit of reinvigorating coordinated effects analysis.

To understand why a reformulated version of Section 7 of the Clayton Act can be an effective remedy against debt collusion, it is important to understand the current limits of merger law. The HSR Act fundamentally transformed

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197 But Section 1 does have an advantage because its treble damages remedy provides for deterrence (and disgorgement).

198 *See* Hart-Scott-Rodino Antitrust Improvements Act of 1976, 15 U.S.C. § 18a.

199 *See* Thomas G. Krattenmaker & Steven C. Salop, *Anticompetitive Exclusion: Raising Rivals' Costs to Achieve Power over Price*, 96 YALE L.J. 209, 238 (1986).

200 Green et al., *supra* note 52, at 465 (describing the economics of tacit collusion). Of course, the number of firms is but one factor to consider. Other factors include ease of entry, excess capacity, size and cost asymmetries, multi-market contact, buyer power, demand shocks, demand uncertainty, price transparency, and ease of communication.

201 *See* FTC v. Univ. Health, Inc., 938 F.2d 1206, 1218 n.24 (11th Cir. 1991) ("Significant market concentration makes it easier for firms in the market to collude, expressly or tacitly, and thereby force price above or farther above the competitive level."); *see also* Hosp. Corp. of Am. v. FTC, 807 F.2d 1381, 1387 (7th Cir. 1986) ("The fewer competitors there are in a market, the easier it is for them to coordinate their pricing without committing detectable violations of [S]ection 1 of the Sherman Act, which forbids price fixing.").

202 FTC v. H.J. Heinz Co., 246 F.3d 708, 724 (D.C. Cir. 2001) ("The combination of a concentrated market and barriers to entry is a recipe for price coordination.").

203 *See* Andrew R. Dick, *Merger Policy Twenty-Five Years Later: Unilateral Effects Move to the Forefront*, 27 ANTITRUST 25, 25 (2012); Jonathan B. Baker, *Why Did the Antitrust Agencies Embrace Unilateral Effects?*, 12 GEO. MASON L. REV. 31, 34 (2003).

merger review under the Clayton Act.[204] It created an administrative mechanism for the antitrust agencies to pre-clear or challenge mergers prior to their consummation.[205]

At the time of the HSR Act's drafting, the acquisition of debt was not seen as problematic and therefore did not require notification. As such, it was exempt from HSR reporting requirements.[206] What worked in the 1970s, however, needs revising in the modern era. The most obvious change is that the use of debt has been significantly transformed since the passage of the HSR Act.[207] Indeed, the world of debt at the time of the enactment of the HSR Act bears little resemblance to today's world of sophisticated debt governance.[208]

Further, academic knowledge across economics, finance, and law regarding the use of debt as a control mechanism has become more refined, transforming scholarship. Yet, prior studies that focused on creditor opportunism had not addressed partial control and the antitrust implications.[209] The theory behind these concerns regarding merger law should also apply to debt.

The current U.S. antitrust system suffers from a form-over-substance problem, as it treats control differently depending on whether it is based on equity or on debt. This is ironic because the bases for merger enforcement and

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[204] *See* Joe Sims & Deborah P. Herman, *The Effect of Twenty Years of Hart-Scott-Rodino on Merger Practice: A Case Study in the Law of Unintended Consequences Applied to Antitrust Legislation*, 65 ANTITRUST L.J. 865, 865 (1997) ("[T]he premerger notification provisions of the HSR Act have been . . . the most important factor in the replacement of merger control through litigation with a comprehensive scheme of merger regulation."); William Blumenthal, *Twenty Years of Hart-Scott-Rodino Merger Enforcement*, 65 ANTITRUST L.J. 813, 813 (1997).

[205] *See* Blumenthal, *supra* note 204, at 814.

[206] *See* 15 U.S.C. § 18a(c).

[207] *See* Elisabeth de Fontenay, *Private Equity's Governance Advantage: A Requiem*, 99 B.U. L. REV. 1095, 1099 (2019).

[208] *See* Johnathan C. Lipson, *Governance in the Breach: Controlling Creditor Opportunism*, 84 S. CAL. L. REV., 1035, 1038–39 (2011); Charles K. Whitehead, *The Evolution of Debt: Covenants, the Credit Market, and Corporate Governance*, 34 J. CORP. L. 641, 671–72 (2009) (detailing changes to debt).

[209] For a further discussion of the various issues that the existing creditor opportunism has addressed, see generally Lipson, *supra* note 208; Daniel R. Fischel, *The Economics of Lender Liability,* 99 YALE L.J. 131 (1989); Victor Brudney, *Corporate Bndholders and Debtor Opportunism: In Bad Times and Good*, 105 HARV. L. REV. 1821 (1992); John C. Coffee, Jr. & William A. Klein, *Bondholder Coercion: The Problem of Constrained Choice in Debt Tender Offers and Recapitalizations*, 58 U. CHI. L. REV. 1207 (1991); William W. Bratton & Adam J. Levitin, *The New Bond Workouts*, 166 U. PA. L. REV. 1597 (2018); Edith S. Hotchkiss, Kose John, Robert M. Mooradian & Karin S. Thorburn, *Bankruptcy and the Resolution of Financial Distress*, *in* 2 HANDBOOK CORPORATE FINANCE: EMPIRICAL CORPORATE FINANCE 253 (B. Espen Eckbo ed., 2008) ("The general conclusion from much of this literature is that absent holdout problems and other coordination problems, private debt restructurings such as exchange offers provide a lower cost restructuring mechanism than formal bankruptcy."); Michelle Harner, *Trends in Distressed Debt Investing: An Empirical Study of Investors' Objectives*, 16 AM. BANKR. INST. L. REV. 69, 84–87 (2008).

antitrust law are more generally the economic effects of a merger. Yet, existing merger case law provides economic analysis that can be applied to similar debt-based issues of control. Antitrust law already identifies situations in which low levels of equity-based control may create competitive concerns. Where there has been enforcement, the rationale for enforcement has been based on economic effects that are subject to fact-specific inquiries. No stock ownership, rather than low stock ownership, can create competition problems based on control—a concept that it not difficult to digest.[210]

For an investor to avail themselves of the passive-investor exemption, they must satisfy two criteria under the HSR Act. First, the acquisition of stock must be made solely for investment purposes (i.e., passive investment).[211] Second, the stock acquired in the transaction must not be used to lessen—or attempt to lessen—the competition substantially.[212] The Supreme Court, in a case preceding the HSR Act, identified that investors can run afoul of the rule even if the investment is passive if the second criterion is not met.[213] Since the enactment of the HSR Act, these two criteria have been narrowly construed by courts and the antitrust agencies when ownership led to influence in business decisions.[214] The antitrust agencies have articulated that an investment exemption means an investor has "no intention of participating in the formulation, determination, or direction of the basic business decisions of the issuer."[215]

Most debt-related deals would not trigger activity suggesting influence or control. Two relatively recent investor exemption cases brought by the Department of Justice (DOJ) Antitrust Division involving stock suggest the type of situations in which debt might have an analogous trigger regarding influence.[216] The first case involves Third Point's investment in Yahoo.[217] Third Point's actions that suggested influence included (1) inquiring about the interest of the candidates in the CEO board positions, (2) assembling an alternate slate of board-of-director candidates, (3) drafting correspondence to Yahoo indicating

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210 Lipson, *supra* note 208, at 1082.

211 *See* 15 U.S.C. § 18(c)(9).

212 *See id.* § 18.

213 *See* United States v. E.I. du Pont de Nemours & Co., 353 U.S. 586, 597–98 (1957).

214 Einer Elhauge, *How Horizontal Shareholding Harms Our Economy–And Why Antitrust Law Can Fix It*, 10 HARV. BUS. L. REV. 207, 263 (2020).

215 16 C.F.R. § 801.1(i)(1) (2018). For a more detailed analysis, see generally Kara Kuritz & Matthew Wheatley, *An Antitrust Roadmap for Private Equity Investment*, 34 ANTITRUST 70 (2020).

216 United States v. Third Point Offshore Fund, Ltd., No. 1:15-cv-01366 (D.D.C. Aug. 24, 2015); United States v. VA Partners I, LLC, No. 3:16-cv-01672 (D.D.C. Apr. 4, 2016).

217 *Third Point Offshore Fund*, No. 1:15-cv-01366.

that Third Point candidates were prepared to join the board, (4) undertaking internal deliberations regarding a proxy battle, and (5) making public statements about a potential slate of directors.[218] The second case involves ValueAct.[219] The DOJ Antitrust Division sued ValueAct, alleging the firm sought to influence Halliburton and Baker Hughes in their merger regarding deal terms and deal strategy.[220] These cases show that even with a small number of shares, it is possible for investors to exercise control.[221] If control is measured by economic effect, these same control dynamics should apply in the case of debt-based control.

B. Use of Corporate Law to Help Explain Control for Antitrust Purposes

Delaware corporate law often recognizes that the economic substance of control trumps the form of governance.[222] Take three areas of governance as examples: (1) standing for derivative suits, (2) the determination of control, and (3) the determination of the ultimate fiduciary. Background legal rules also provide bargaining for ex ante legal contracting in bond contracts, which can shape debt governance.[223]

Who controls the corporation for purposes of fiduciary duties is largely contextual rather than based on who owns the majority of shares. One of the best-known cases involving the entire fairness doctrine is *Kahn v. Lynch Communications Systems, Inc*.[224] In this case, the Delaware Supreme Court found that a minority shareholder, Alcatel, was a controlling shareholder even though it owned only 43.3% of the shares and appointed only a minority of the board members. Since *Kahn*, courts have examined whether a shareholder "actually control[s] the board's decisions about the challenged transaction."[225] The Delaware courts have held that the amount of stock necessary to be controlling can be as low as a 17.3% stake.[226]

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218 *Id.* at 6.

219 *VA Partners I*, No. 3:16-cv-01672.

220 *See* Complaint at 2, *VA Partners I*, No. 3:16-cv-01672.

221 *See id.*

222 In some areas, Delaware law prefers substance over form. Different merger structures have different treatment with regard to shareholder voting. Similarly, the doctrine of independent legal significance provides that one section of law is legally independent of other unrelated sections.

223 *See* Badawi, *supra* note 65, at 3, 7–8.

224 638 A.2d 1110 (Del. 1994).

225 *In re* Crimson Expl. Inc. S'holder Litig., No. 8541, 2014 WL 5449419, at *12 (Del. Ch. 2014).

226 *See In re* Zhongpin Inc. S'holder Litig., No. 7393, 2014 WL 6735457, at *8 (Del. Ch. 2014), *rev'd*, *In re* Cornerstone Therapeutics Inc. S'holder Litig., 115 A.3d 1173 (Del. 2015).

Delaware law also examines substance over form in determining the ultimate fiduciary. For example, in *In re USACafes, L.P. Litigation*,[227] the Delaware Supreme Court held that the directors of the corporate general partner of a limited partnership owe a fiduciary duty directly to the limited partnership.[228] Similarly, in *Pepsi-Cola Bottling Company of Salisbury, Maryland v. Handy*,[229] the court carried out a fact-specific inquiry of veil piercing (and conduct prior to forming an LLC) to establish the liability of the residual owners of the LLC. Hence, it is possible to address issues of substance over form in a business law context.

C. *Other Legal Systems that Offer Some Guidance on a More Robust Inclusion of Debt-Based Control*

A number of other legal regimes have addressed debt-based control in antitrust matters. These regimes show it is possible to formulate functional legal rules that do not create significant administrative costs for a more robust antitrust enforcement of debt-based control.

1. *Japan*

In Japan, there is a five percent notification threshold for ownership both in the Antimonopoly Act and the Banking Act with regard to debt.[230] Both restrictions limit the bank's control on the acquired firm.

The Japan Fair Trade Commission (JFTC) merger guidelines explicitly mention "financial relationship" as a factor for deciding whether a firm is in a "joint relationship" with another firm.[231] If the acquiring firm is neither the top shareholder nor owns more than twenty percent of a target's shares, the JFTC examines a number of factors to decide whether the acquiring firm and the acquired firm are in a "joint relationship." The JFTC presumes that if the two

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[227] 600 A.2d 43, 49 (Del. Ch. 1991).

[228] This is longstanding under Delaware corporate law. *See* S. Pac. Co. v. Bogert, 250 U.S. 483, 491–92 (1919) (holding that the parent shareholder of the company that is the controlling shareholder of the downstream corporation owed a fiduciary duty to the shareholders of the downstream corporation).

[229] No. 1973-S, 2000 WL 364199, at *4 (Del. Ch. Mar. 15, 2000).

[230] Act on Prohibition of Private Monopolization and Maintenance of Fair Trade (Act No. 54, Apr. 14, 1947) (Japan).

[231] JAPAN FAIR TRADE COMM'N, GUIDELINES TO APPLICATION OF THE ANTIMONOPOLY ACT CONCERNING REVIEW OF BUSINESS COMBINATION 4 (2019), https://www.jftc.go.jp/en/legislation_gls/imonopoly_guidelines_files/110713.2.pdf.

firms are in a "joint relationship," then they will operate their businesses in a unified way, whether fully or partially.[232]

2. European Commission

The European Commission (EC) approach of "decisive influence" is not lowered or altered depending on the transaction form and should capture when a creditor acquires influence over a distressed or bankrupt target. The closest policy gets to debt-based control is the consolidated jurisdictional notice, which gives the EC the right to look into debt instruments.[233] There are a few court cases that address the impact of debt between close competitors and mix both debt and equity with regard to the issues of control, but those cases address debt that constrains the ability of a firm to spend to improve its competitive position.[234]

3. United Kingdom

The United Kingdom competition regime recognizes low levels of ownership, and no ownership may raise competition concerns. Competition concerns arise when there is "material influence" at less than twenty-five percent shareholdings, and in exceptional cases, less than ten to fifteen percent.[235] This is largely a fact-specific inquiry.[236] There has been at least one case where a party used debt to have another firm front its investment in a competitor.[237] The rules around material influence are probably flexible enough to involve situations of pure debt.

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[232] *Id.* at 2–3; *see, e.g.*, JAPAN FAIR TRADE COMM'N, RESULTS OF INVESTIGATION INTO THE PROPOSED MERGER BETWEEN NIPPON STEEL CORPORATION & SUMIMOTO METAL INDUSTRIES, LIMITED 4 (2011), https://www.jftc.go.jp/en/pressreleases/yearly-2011/dec/individual-000457_files/2011_Dec_14.pdf (showing the presumption of a joint relationship can be rebutted).

[233] *See* Commission Consolidated Jurisdictional Notice Under Council Regulation 139/2004, 2008 O.J. (C 95) 1, 8 ("Furthermore, control can also be established by any other means. Purely economic relationships may play a decisive role for the acquisition of control. In exceptional circumstances, a situation of economic dependence may lead to control on a *de facto* basis where for example long term supply agreements or credits provided by suppliers or customers, coupled with structural links, confer decisive influence.").

[234] *See* OFF. J. EUR. CMTYS., COMMISSION DECISION, 93/252/EEC art. 2, No. L 116, 21 (Nov. 10, 1992).

[235] Competition & Markets Authority, *Mergers: Guidance on the CMA's Jurisdiction and Procedure*, GOV.UK, ¶ 4.27 (Dec. 23, 2020) [hereinafter CMA, *Mergers: Guidance*], https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/384055/CMA2__Mergers__Guidance.pdf.

[236] *See id.*

[237] *See* The Merger Situation (Stora/Swedish Match/Gillette) (Interim Provision) Order 1991, SI 1991/750, art. 1, ¶ 3 (Eng.).

Addressing this concern, the Competition Market Authority's merger guidance refers to lender control.[238] The guidance explains that board representation alone (without shareholding) can be sufficient for material influence. Further, the debt control hypothesis was flagged in a 2018 government white paper on reforms to national security,[239] which noted "there may be exceptional instances where loans or conditional acquisitions (like futures options) give rise to national security risks."[240]

CONCLUSION

Overall, antitrust policymakers must do a better job of incorporating decades of theoretical and empirical financial economics and the economics of debt-based control into their policies. While not all debt-related transactions have created competitive concerns, a subset of such transactions may do so. At present, neither Section 7 of the Clayton Act nor Section 1 of the Sherman Act provide a mechanism to address these issues. Reforms to merger law offer the easiest and most effective way to address such problematic situations. Such a reformulation can mimic how other jurisdictions identified that this sort of collusive activity warrants review. Particularly during a period of economic tumult, in which debt transactions may increase, antitrust thinking needs such an urgent change.

To better understand the specifics of how debt-based collusion and control work, empirical studies should foster a better understanding of the industries in which much commonly owned debt is seen. Debt control collusion may be higher when an industry's characteristics and past experiences with bankruptcy lead to the expectation that the state of the world is more likely to affect the industry more than other industries, but empirical evidence will better explain when such predictions hold up. The use of textual analysis for machine learning

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[238] CMA, *Mergers: Guidance*, *supra* note 235, ¶ 4.36 ("Financial arrangements may in certain circumstances confer material influence where the conditions are such that one party becomes so dependent on the other that the latter gains material influence over the company's commercial policy (for example, where a lender could threaten to withdraw loan facilities if a particular policy is not pursued, or where the loan conditions confer on the lender an ability to exercise rights over and above those necessary to protect its investment, say, by options to take control of the company or veto rights over certain strategic decisions)."); *see also* OFF. OF FAIR TRADING, COMPLETED ACQUISITION BY FIRST MILK LIMITED OF A 15 PER CENT STAKE IN ROBERT WISEMAN DAIRIES PLC, 2005, at 2 (UK) (providing similar insight).

[239] *See* SEC'Y STATE FOR BUS., ENERGY & INDUS. STRATEGY, NATIONAL SECURITY & INVESTMENT: A CONSULTATION ON PROPOSED LEGISLATIVE REFORMS (2018), https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/728310/20180723_-_National_security_and_investment_-_final_version_for_printing__1_.pdf.

[240] *See id.* at 30.

also offers possibilities to better understand these dynamics through review of securities filings, press releases, analyst calls, debt covenants, and other forms of communication in which tacit collusion may occur.[241]

Better empirics will allow potential plaintiffs to identify the circumstances under which creditors have incentives to collude and (working back) the circumstances under which creditors have incentives to accumulate debt across firms in the same industry. Such an understanding will have implications on the industry conditions. Specifically, it would alter the likelihood of debt becoming more valuable due to the advantage of cross-company control to be used for anti-competitive purposes. This differs from a mere understanding among debtholders that they are all similarly situated and should behave when firms are under distress or in a state of bankruptcy.

Other jurisdictions are more attuned to the potential risk of debt control as a competition issue. To the extent that debt control is a competition problem, the circumstances in which such a problem may manifest via tacit collusion are limited. However, under such circumstances, antitrust law in the United States faces an enforcement gap, which may lessen competition and hurt consumers. The most effective way to address these concerns is to reformulate the HSR rules to add debt-based control as a factor that may produce an anti-competitive effect. Such an outcome recognizes the economic-based spirit of the existing HSR rules and applies that spirit to a different type of transaction—one that has the same effect of influencing business decision-making and substantially lessening competition.

[241] For recent work on textual analysis and machine learning, see generally Jonathan Clarke, Hailiang Chen, Ding Du & Yu Jeffrey Hu, *Fake News, Investor Attention, and Market Reaction*, 32 INFO. SYS. RSCH. 35 (2020) (demonstrating that one can identify fake news from linguistic features of article); Tarek A. Hassan, Stephan Hollander, Laurence van Lent & Ahmed Tahoun, *Firm-Level Political Risk: Measurement and Effects*, 134 Q.J. ECON. 2135 (2019) (showing tools from computational linguistics can be used to measure political risks); David E. Pozen, Eric L. Talley & Julian Nyarko, *A Computational Analysis of Constitutional Polarization*, 105 CORNELL L. REV. 1 (2019) (using text-analysis techniques to investigate constitutional discourse outside courts).