DEBT, CONTROL, AND COLLUSION

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ABSTRACT

Partial ownership of stock in multiple competing firms is an important scholarly and policy topic in both corporate and antitrust law. Until now, the discussion has focused on ownership. This essay shifts 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, 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 in the corporate finance and bankruptcy law literatures have not penetrated antitrust debates or policy. Applying such insights, this essay suggests that a fundamental change in antitrust policy is necessary to police against debt-control-based collusion.

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I. 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 to maximize the value of any particular company within its portfolio. Such behavior, if true, may violate antitrust law and harm consumers.

This essay shifts 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, but debt-control-based governance is a critical part of the corporate landscape.[2] Further, various creditors can exert control over more than one company in the same industry without any ownership. These insights in the corporate finance and bankruptcy law literatures have not penetrated antitrust scholarly debates or policy. Applying such insights, this essay suggests that a fundamental change in antitrust policy is necessary to police against debt-control-based collusion.

The change is necessary based on a gap in the statutory structure of antitrust law[3]: antitrust merger law exempts pure debt transactions from antitrust scrutiny. 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

[1] Andrew Koch et al., *Common Ownership and Competition in Product Markets*, 139 J. Fin. Econ. 109 (2021); C. Scott Hemphill & Marcel Kahan, *The Strategies of Anticompetitive Common Ownership*, 129 YALE L.J. 1392 (2020); Yaron Nili, *Horizontal Directors*, 114 NW. U. L. REV. 1179 (2020); Jose Azar et al., *Anticompetitive Effects of Common Ownership*, 73 J. FIN. 1514 (2018); Edward B. Rock & Daniel L. Rubinfeld, *Antitrust for Institutional Investors*, 82 ANTITRUST L.J. 221 (2018); Menesh Patel, *Common Ownership, Institutional Investors, and Antitrust*, 82 ANTITRUST L.J. 279 (2018); Lucian A. Bebchuk et al., *The Agency Problems of Institutional Investors*, 31 J. ECON. PERSP. 89, 108-09 (2017); Dorothy S. Lund, *The Case Against Passive Shareholder Voting*, 43 J. CORP. L 493 (2017); Einer Elhauge, *Horizontal Shareholding*, 129 HARV. L. REV. 1268 (2016) (advocating for more antitrust enforcement under Clayton Act Section 7); Eric A. Posner et al., *A Proposal to Limit the Anticompetitive Power of Institutional Investors*, 81 ANTITRUST L.J. 669 (2017); 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).

[2] See Section III *infra*.

[3] See Section V.A. *infra*.

missed a fundamental issue that harms consumers. Even odder is the fact that antitrust law's current approach to debt focuses on form rather than substance, whereas antitrust law normally favors substance.[4]

This essay identifies the incentives for both management and creditors' engagement in debt-control-based collusion and the mechanism by which such anti-competitive conduct can occur. Next, this essay argues that the appropriate antitrust test for mergers should be about a change of control rather than about a change of ownership so that transactions that can change the fundamental economic power of governance within a firm 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 penetrated antitrust thinking. Finally, this essay suggests opportunities for policy reform and further research. 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.

II. ANTITRUST ECONOMICS AND COMMON OWNERSHIP

This section identifies the issues involved in antitrust economics and common ownership. First, it identifies the theory of competitive harm in common ownership in economics and law. 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 (e.g., hedge funds, mutual funds, and private equity funds) may bring about anti-competitive effects by reducing the competition across firms within the common owner's portfolio. Normally, firms compete with each other, with a gain by one firm taking away from the market share of its competitors. 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.[5]

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[4] Herbert Hovenkamp & Carl Shapiro, *Horizontal Mergers, Market Structure, and Burdens of Proof*, 127 YALE L. J. 1996, 2025 (2018); D. Daniel Sokol, *Antitrust's Curse of Bigness Problem*, 118 MICH. L. REV. 1259 (2000); William E. Kovacic & Carl Shapiro, *Antitrust Policy: A Century of Economic and Legal Thinking*, 14 J. ECON. PERSP. 43 (2000).

[5] Azar et al., *Anticompetitive Effects* at 1521, supra note 1.

A common owner across firms in the same industry will want to maximize its entire portfolio of investments rather than maximize its investment in one particular firm in its portfolio.[6] This means that a common owner finds a way to influence the profitability and conduct of its portfolio company rivals when it makes strategic decisions in each of its portfolio firms. This behavior is collusive and may harm consumers.

The existence of an antitrust common-ownership problem started to be recognized in the 1980s.[7] Theoretical articles continued to engage in this debate intermittently.[8] However, a series of recent empirical finance and law review articles in recent years have drawn attention anew to the issues of common ownership and competition.[9] 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 will benefit consumers.[10]

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[6] Timothy Bresnahan & Steven C. Salop, *Quantifying the Competitive Effects of Production Joint Ventures*, 4 INT'L J. INDUS. ORG. 155 (1986).

[7] JULIO ROTEMBERG, FINANCIAL TRANSACTION COSTS AND INDUSTRIAL PERFORMANCE (1984)(noting that the anti-competitive effect was "simply as 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 (1986); (finding output is lower when there is partial ownership); Timothy F. Bresnahan & Steven C. Salop, *Quantifying the Competitive Effects of Production Joint Ventures*, 4 INT'L J. INDUS. ORG. 155 (1986) (showing that silent financial ownership is less competitive than an independent joint venture).

[8] Robert G. Hansen & John R. Lott, Jr., *Externalities and Corporate Objectives in a World with Diversified Shareholders/Consumers*, 31 J. FIN. & QUANTITATIVE ANALYSIS 43, 44 (1996); Daniel P. O'Brien & Steven C. Salop, *Competitive Effects and Partial Ownership: Financial Interest and Corporate Control*, 67 ANTITRUST L.J. 559 (2000) (identifying that partial ownership may reduce consumer welfare more than a merger of competitors); David Gilo et al., *Partial Cross Ownership and Tacit Collusio*n, 37 RAND J. ECON. 81 (2006) (focusing on the coordinated 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 (2010); Azar et al., *Anticompetitive Effects;* Duarte Brito et al., *Measuring Unilateral Effects in Partial Horizontal Acquisitions*, 33 INT'L J. INDUS. ORG. 22 (2014); Samuel de Haas & Johannes Paha, Partial cross ownership and collusion (2016)(working paper, available at https://econpapers.repec.org/paper/marmagkse/201632.htm); Angel L. Lopez & Xavier Vives, Overlapping Ownership, R&D Spillovers, and Antitrust Policy (2018 working paper, available at https://blog.iese.edu/xvives/files/2018/06/Lopez-Vives-May-2018-forth.pdf)..

[9] See footnote 1, *supra*.

[10] Note that such an outcome holds even with passive investments as even passive investors participate in corporate governance decision-making. See Alon Brav et al., Picking Friends Before Picking (Proxy) Fights: How Mutual Fund Voting Shapes Proxy Contests,

The 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 can harm consumer welfare. The reason for the reduced competition is that common ownership reduces the incentives to compete, and the reduction of the incentives to compete will make it more likely for the shareholders to benefit from tacit collusion.[11]

Overall, the impact of this new empirical learning has created shockwaves in antitrust thinking so much so that antitrust agencies in the United States[12] and globally have begun to study the issue seriously.[13] This includes recently proposed changes to US merger filing requirements.[14]

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.[15] Others have embraced the common-ownership critique to suggest limits to common-ownership policy issues because of the competitive effects, and/or have suggested particular roles that antitrust law can play.[16] However, none of the

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(2018 working paper).

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

[12] Oversight of the Enforcement of the Antitrust Laws: Hearing Before the Subcomm. on Antitrust, Competition Policy, and Consumer Rights, 114th Cong. (Mar. 9, 2016); Andrew Finch, *Concentrating on Competition: An Antitrust Perspective on Platforms and Industry Consolidation* (Dec. 14, 2018); Opening Remarks of Commissioner Noah Joshua Phillips, FTC Hearing #8: Competition and Consumer Protection in the 21st Century, Corporate Governance, Institutional Investors, and Common Ownership, NYU School of Law, New York, NY, December 6, 2018, available at https://www.ftc.gov/system/files/documents/public_statements/1454690/phillips_-_ftc_hearing_8_opening_remarks_12-6-18.pdf.

[13] OECD, Common Ownership by Institutional Investors and its Impact on Competition, DAF/COMP(2017)10, available at https://one.oecd.org/document/DAF/COMP(2017)10/en/pdf. See also Einer Elhauge, *Horizontal Shareholding*, 129 HARV. L. REV. 1267, 1301-16 (2016). Einer Elhauge, *How Shareholding Harms Our Economy - And Why Antitrust Law Can Fix It*, 10 HARV. BUS. L. REV. 207 (2020).

[14] See FTC and DOJ Seek Comments on Proposed Amendments to HSR Rules and Advanced Notice of Proposed HSR Rulemaking, press release, https://www.ftc.gov/news-events/press-releases/2020/09/ftc-doj-seek-comments-proposed-amendments-hsr-rules-advanced.

[15] Daniel P. O'Brien & Keith Waehrer, *The Competitive Effects of Common Ownership: We Know Less Than We Think*, 81 ANTITRUST L.J. 729 (2017); Lucian A. Bebchuk et al., *The Agency Problems of Institutional Investors*, 31 J. ECON. PERSP. 89, 108-09 (2017).

[16] See footnote 1, *supra*.

original theoretical literature or contemporary work and critiques identify common debt and collusion as a distinct issue. Nor id the focus on coordinated effects and tacit collusion.

Courts and antitrust agencies construe a singular economic goal for antitrust law.[17] However, the economic approach is not static. Rather, antitrust law evolves with advances in economics. 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."[18] For this reason, antitrust doctrine has shifted in the past 40 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.[19]

Where antitrust policy has been relatively effective in marrying economic analysis to administrability concerns has been in the traditional industrial organization economics, which examines the competition across firms.[20] 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. As a result, relating to issues of control, antitrust policy has created inflexible formalistic rules regarding the form of organizational structure (stock) instead of focusing on the economic effects of control across both debt and equity and on incentives within the firm with regard to issues of corporate control.[21] In so doing, antitrust policy has come to be at odds with economic analysis.

The traditional view in antitrust economics is that debt weakens rather than strengthens collusion. Further, price wars are often used as a punishment mechanism within the collusion literature.[22] In a classic article, Fershtman and Pakes provide two reasons for the claim that a financially marginal firm

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[17] Roger D. Blair & D. Daniel Sokol, *The Rule of Reason and the Goals of Antitrust: An Economic Approach*, 78 ANTITRUST L.J. 471 (2012).

[18] 135 S. Ct. 2401, 2412–13 (2015).

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

[20] Shapiro and Kovacic, supra note 3.

[21] GEORGE M. CONSTANTINIDES MILTON HARRIS, & RENE M. STULZ, HANDBOOK OF THE ECONOMICS OF FINANCE 2A: CORPORATE FINANCE (2012); GEORGE M. CONSTANTINIDES MILTON HARRIS, & RENE M. STULZ, HANDBOOK OF THE ECONOMICS OF FINANCE 2B: CORPORATE FINANCE (2012).

[22] 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).

may serve to destabilize collusive behavior: insufficient punishment and predatory behavior.[23] 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 the way financially strong firms can. As a result, firms that are on a stronger footing financially prefer to 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. Maksimovic makes a similar argument about debt leading to the breakdown of collusion (by changing the payoff structure).[24]

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 Antitrust Improvements Act of 1976 ("HSR"),[25] misses all pure-debt (as opposed to convertible-debt) transactions.[26] So do the current proposed reforms of HSR to address common ownership.[27]

This essay advocates a fundamental reframing of antitrust thinking to address this gap in debt-related enforcement, one that the current economic crisis, with many companies entering into bankruptcy or into financial distress, exacerbates. In so doing, this essay 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 essay reviews how debt and control work. In short, one or more debt funds can have no ownership but can still control the decision making in an entire industry

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

[24] Vojislav Maksimovic, *Capital Structure in Repeated Oligopolies*, 19 RAND J. ECON. 389 (1988) (also allowing for convertible debt). The current Essay assumes only pure debt rather than convertible debt, which is reported under merger law when the firm converts the debt to equity.

[25] William Baer, Before The Conference Board, Washington, D.C., October 29, 1996 and before The 35th Annual Corporate Counsel Institute, Northwestern University School of Law, Corporate Law Center, San Francisco, CA, October 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.(3) That prophesy has rung true.").

[26] Convertible debt that becomes an equity stake must be notified but that transformation fits within the ownership as control paradigm.

[27] See FTC and DOJ Seek Comments on Proposed Amendments to HSR Rules and Advanced Notice of Proposed HSR Rulemaking | Federal Trade Commission.

through debt, in a way that weakens competition and hurts consumers in much the same way that partial ownership may do.

The implications of operationalizing this essay's theory of debt-related control antitrust issues require the identification of both the incentives and mechanisms for anti-competitive harm. Regarding managerial incentives**,** as the next section will show, debt-based common ownership alters managerial incentives such that managers may cause their firms to behave anti-competitively. Sections III and IV provide the mechanisms for such collusive activity. Section V concludes.

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. That specification of managerial behavior can be justified in a variety of ways, such as through shareholder voting. 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, the shareholders will vote the managers out.

The incentives for collusion work differently in debt than in equity. At the firm level, in the typical setting of collusion, shareholders have an incentive to have their firms engage in anti-competitive conduct (because the shareholders are the residual claimants) as they benefit from higher prices via collusion through increased stock valuation due to higher revenues. Creditors typically lack this incentive because they do not have the same upside as 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.[28] Incentive contracts may be written in such a way that managers may have lower benchmarks to make the bonus.[29]

In some settings, creditors may have an incentive to collude with

[28] See e.g., Vojislav Maksimovic, Capital Structure in Repeated Oligopolies, 19 RAND. J. ECON. 389 (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).

[29] Law school students understand a change of incentives such as a change of effort between pass/fail and graded classes. See also Miguel Antón et al., Common Ownership, Competition, and Top Management Incentives (2016).

control.[30] A necessary condition for this is when the capital structure 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.

There are several factors that make debt-based control and collusion more likely. 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 (no one is trying to dominate the industry, which is likely to reduce the variance). 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. Ex post, debt holders 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 US$100 million each to four firms. The payoff for creditor A is US$12 million in total (US$3 million per firm) assuming that all the four firms pay back their respective principals of US$100 million. However, as 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 US$0). In this scenario, creditor A makes US$9 million for its total investment from the three other portfolio firms (US$3 million per firm) but loses the US$100 million that it lent to firm 4, for a total loss of US$91 million in its investment portfolio. It recoups the US$300 million principal, however, that it had lent to the other firms.

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 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 CEO for firms 1-4. Every firm competes, but not too rigorously. Now, creditor A will get its entire payoff of US$12 million, with almost no risk of default on the US$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

[30] A more sophisticated version would involve both equity control for one firm and debt control for the other firms in the same industry.

collusive outcome.

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, it seems that the relevant antitrust question is whether they 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 or not to, (3) reduce the capital expenditures, and (4) replace the 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, but such control is merely understood, such as in franchising,[31] maximum resale price maintenance,[32] and minimum advertising prices.[33]

Noting the incentives of management and creditors, the mechanism of control requires an analysis of whether in an environment of debt-based common ownership (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.[34] To explore incentives involving debt and control in greater detail, the next section explains how debt can create such mechanisms of control.

III. DEBT AND CONTROL

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[31] Oren Rigbi & Itai Ater, *Price Control and Advertising in Franchised Chains*, 36 STRAT. MGMT J. 148 (2015);

[32] Roger D. Blair & Amanda K. Esquibel, *Maximum Resale Price Restraints in Franchising*, 65 ANTITRUST L.J. 157 (1996).

[33] Ayelet Israeli, *Online MAP Enforcement: Evidence From a Quasi-Experiment*, 57 MARKETING SCI. 685 (2018).

[34] Antitrust history also provides some flavor to this. The old "ruinous competition" competition cases from the1890s and thereafter beginning with *Trans-Missouri*, as well as *Addyston Pipe*. 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 to price fixing was that ruinous competition would result in a large proportion of them being driven into bankruptcy an 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 would lose. 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).

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 the overall business strategy.[35] 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, which means that the equity stake increases. A US$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 the 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.[36]

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 limited to the amount invested in the firm. These create different incentives for creditors and equity holders. As Kroszner and 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."[37] 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.[38] Keswani et al. found that the more troubled a firm is the more there will be

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[35] Bo Becker & Per Stromberg, *Fiduciary Duties and Equity Debtholder Conflicts*, 25 REV. FIN. STUD. 1931 (2012).

[36] Mathias Dewatripont & Jean Tirole, *A Theory of Debt and Equity: Diversity of Securities and Manager-Shareholder Congruence*, 109 Q.J. ECON. 1027 (1994).

[37] Kroszner & Strahan at 420.

[38] Aneel Keswani, Anh Tran and Paolo Volpin, Institutional Debt Holdings and Governance (working paper 2019) at 1, available at https://ecgi.global/sites/default/files/working_papers/documents/finalkeswanitranvolpin_0.pdf.

misalignment between the interests of the debtholders and shareholders because such a misalignment "is magnified close to financial distress."[39] Related to this, Badawi identified "evidence of increased restrictiveness in the bond contracts entered into by Delaware firms relative to non-Delaware firms. As one would expect, the results are particularly strong for those debtors who are in poor financial health."[40] These different incentives suggest that creditors prefer stability.

This primer on debt vs. equity helps set 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 conversation, 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 US$100 trillion in 2017 whereas the global equity market value was US$85 trillion.[41]

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.[42] To ensure repayment, creditors exert control on their borrowers through contracts.[43] This concept

[39] Id at 3.

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

[41] George Dallas, The Role of the Creditor in Corporate Governance and Investor Stewardship, https://corpgov.law.harvard.edu/2019/10/09/the-role-of-the-creditor-in-corporate-governance-and-investor-stewardship/#2.

[42] Carrizosa at 316 ("Lenders' primary goal is to ensure that they earn adequate returns on their loans.").

[43] Colleen Honigsberg et al., *State Contract Law and Debt Contracts*, 57 J.L. & ECON. 1031 (2014).

of control through debt contracts has been well studied in law[44] and economics.[45]

By agreeing to debt contracts and the covenants therein, firms trade off increased monitoring/ control for access to credit.[46] Access to financial and operational information allows creditors to better understand when borrowers may run into trouble in complying with the terms of the covenants or may actually violate such terms.[47] Similarly, covenants reduce moral hazards

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[44] Stephen Bainbridge, Agency, Partnerships & LLCs 2nd ed. 28-32, 123-27 (2014); Yesha Yadav, *The Case for a Market in Debt Governance*, 67 VAND. L. REV. 771 (2014); Frederick Tung, *Leverage in the Board Room: The Unsung Influence of Private Lenders in Corporate Governance*, 57 UCLA L. REV. 115 (2009); Douglas G. Baird & Robert K. Rasmussen, *Private Debt and the Missing Lever of Corporate Governance*, 154 U. PA. L. REV. 1209 (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 (1995); 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); Kenneth M. Ayotte & Edward R. Morrison, *Creditor Control and Conflict in Chapter 11*, 1 J. LEGAL ANALYSIS 511, 537-39 (2009); Robert K. Rasmussen, *Taking Control Rights Seriously*, 166 U. PA. L. REV. 1749 (2018).

[45] Michael R. Roberts & Amir Sufi, *Control Rights and Capital Structure: An Empirical Investigation*, 64 J. FIN. 1657, 1658 (2009); Mathias Dewatripont & Jean Tirole, *A Theory of Debt and Equity: Diversity of Securities and Manager-Shareholder Congruence*, 109 Q.J. ECON. 1027, 1049-50 (1994); Philippe Aghion & Patrick Bolton, *An Incomplete Contracts Approach to Financial Contracting*, 59 REV. ECON. STUD. 473, 486-90 (1992); 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 (2007); Sudheer Chava & Michael R. Roberts, *How Does Financing Impact Investment? The Role of Debt Covenants*, 63 J. FIN. 2085 (2008); Greg Nini, David C. Smith & Amir Sufi, *Creditor Control Rights, Corporate Governance, and Firm Value*, 25 REV. FIN. STUD. 1713 (2012); David J. Denis & Jing Wang, *Debt covenant renegotiations and creditor control rights*, 113 J. FIN. ECON 348 (2014); Daniel Ferreira et al., *Creditor Control Rights and Board Independence*, 73 J. FIN. 2385 (2018); Michael R. Roberts, *The Role of Dynamic Renegotiation and Asymmetric Information in Financial Contracting*, 116 J. FIN. ECON. 61, (2015); Antonio Falato & Nellie Liang, *Do Creditor Rights Increase Employment Risk? Evidence from Loan Covenants*, 71 J. FIN. 2545 (2016); Stuart C. Gilson, *Bankruptcy, Boards, Banks and Blockholders: Evidence on Changes in Corporate Ownership and Control When Firms Default*, 27 J. FIN. ECON. 355 (1990); Steven N. Kaplan & Bernadette A. Minton, *Appointments of Outsiders to Japanese Boards, Determinants and Implications for Managers*, 36 J. FIN. ECON. 225 (1994).

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

[47] Michael R. Roberts & Amir Sufi, *Control Rights and Capital Structure: An Empirical Investigation*, 64 J. FIN. 1657, 1660 (2009) (finding that most renegotiations do not terminate the debt contract).

through improved monitoring.[48]

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; pushing for the replacement of top executives…."[49] According to Triantis and Daniels, such "[covenants] serve as trip wires for the lender's right to accelerate and enforce or to intervene in the borrower's decisions."[50] When there is a violation of the terms of a debt covenant, this 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.[51]

This potential acceleration changes creditors' traditional bargaining leverage with the managers of a debtor firm.[52] This change in bargaining leverage in turn leads to the renegotiation of the debt contract, which gives debtholders additional control over the firm's policy.[53] Even when there is no

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[48] Valeri V. Nikolaev, *Scope for renegotiation in private debt contracts*, 65 J. ACCT'G & ECON. 270 (2018); Robert K. Rasmussen & Douglas G. Baird, *Private Debt and the Missing Lever of Corporate Governance*, 154 U. PA. L. REV. 1209 (2006).

[49] Yuqi Gu, *Bank Interventions and Firm Innovation: Evidence from Debt Covenant Violations*, 60 J.L. & ECON. 637, 638 (2018).

[50] George G. Triantis & Ronald J. Daniels, *The Role of Debt in Interactive Corporate Governance*, 83 CALIF. L. REV. 1073, 1093-94 (1995).

[51] Miguel A. Ferreira & Beatriz Mariano, *Creditor Control Rights and Board Independence*, 73 J. FIN. 2385 (2018); Paul Asquith et al., *Performance Pricing in Bank Debt Contracts*, 40 J. ACCT'G & ECON. 101 (2005); Frederick Tung, *Leverage in the Board Room: The Unsung Influence of Private Lenders in Corporate Governance*, 57 UCLA L. REV. 115, 119 (2009) ("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 (1995).

[52] See e.g., Roberts & Sufi, *Control Rights*, *supra* note 48; Chava and Roberts, *supra* note 48; Antonio Falato & Nellie Liang, *Do Creditor Rights Increase Employment Risk? Evidence from Loan Covenants*, 71 J. FIN. 2545 (2016); Michael R. Roberts, *The Role of Dynamic Renegotiation and Asymmetric Information in Financial Contracting*, 116 J. FIN. ECON. 61, 62 (2015). Debt renegotiation may occur even without a breach. See David J. Denis & Jing Wang, *Debt Covenant Renegotiations and Creditor Control Rights*, 113 J. FIN. ECON. 348, 349 (2014).

[53] Ferreira & Mariano, *Creditor Control Rights* , *supra* note 48 Roberts & Sufi, *Control Rights* at 1666, *supra* note 48 ("Although the allocation of control rights is an important aspect of these models, creditor 'control' does not necessarily entail creditors literally replacing managers as decisionmakers."); Sudheer Chava & Michael R. Roberts, *How Does Financing Impact Investment? The Role of Debt Covenants*, 63 J. FIN. 2085 (2008); Albert Choi & George Triantis, *Market Conditions and Contract Design: Variations in Debt Contracting*, 88 N.Y.U. L. REV. 51 (2013); Ilia D. Dichev & Douglas J. Skinner, *Large-*

breach of a debt contract through default, such contract may be renegotiated as violations rarely lead to default. Instead, when default occurs, there is the option of renegotiation.[54] As such, bondholders have control over debtor firms even without ownership and even without a contract violation.[55]

Creditors may also influence who joins the board of a firm. In their recent work, Ferreira et al. found that the number of independent directors on a board increases 24% following a debt contract violation, and that most of these new directors have ties to the creditors.[56]

Financial payoff structures work differently for debt than for equity, and this tension between debt and equity becomes clearer in situations where firms are in distress.[57] 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 the industry may allow such creditors to have effective control of the debtor firms without ownership of such, 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 suggested in the next part of this essay, however, a particular type of debtholder is more likely to be able to have both the means and motivation to use debt-based control to tacitly collude with other debtholders. As a further section explains, there is no antitrust tool at present that can be effectively

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Sample Evidence on the Debt Covenant Hypothesis, 40 J. ACCT. RES. 1091 (2002).

[54] Philippe Aghion & Patrick Bolton, *An Incomplete Contracts Approach to Financial Contracting*, 59 REV. ECON. STUD. 473 (1992).

[55] Robert K. Rasmussen & Douglas G. Baird, *Private Debt and the Missing Lever of Corporate Governance*, 154 U. PA. L. REV. 1209, 1227 (2006) ("The lending agreement contains many affirmative and negative covenants that give the lender de facto control over every aspect of the business. Moreover, the complete control the lender has over the debtor's cash flow gives the lender veto power over every course of action, whether internal to the corporation or outside it. 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."); David J. Denis & Jing Wang, *Debt Covenant Renegotiations and Creditor Control Rights*, 113 J. FIN. ECON. 348, 349 (2014) (identifying covenant modification in fifty-three percent of debt contracts); Michael R. Roberts, *The Role of Dynamic Renegotiation and Asymmetric Information in Financial Contracting*, 116 J. FIN. ECON. 61, 62 (2015) (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 are renegotiated).

[56] Ferreira et al., *supra* note 48.

[57] Randall S. Kroszner & Philip E. Strahan, *Bankers on Boards: Monitoring, Conflicts of Interest and Lender Liability*, 62 J. FIN. ECON. 415, 416 (2001). Another such situation of different debt versus equity tensions in corporate governance exist when firms may face risky investment decisions.

used to deal with this scenario.

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.

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.[58] Hedge funds tend to hold financial leverage in companies that are highly concentrated and illiquid.[59]

Similarly, private equity has several efficiency-enhancing benefits. These include (1) better 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) creation of a sense of urgency, (5) the ability to use leverage more effectively, (6) avoidance of the costs imposed by the Sarbanes-Oxley Act, and (7) freedom from shareholder suits.[60]

Despite the general pro-competitive nature of debt, however, two classes of firms are more likely to have a potential anti-competitive impact due to common debtholder control issues: distressed firms and firms in bankruptcy.

[58] Timothy F. Geithner, Hedge Funds and Derivatives and Their Implications for the Financial System, Remarks at the Distinguished Lecture 2006, sponsored by the Hong Kong Monetary Authority and Hong Kong Association of Banks, Hong Kong (Sept. 15, 2006), transcript available at www.newyorkfed.org/newsevents/speeches/2006/gei060914.html) (last visited Mar. 23, 2008) ("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.").

[59] Jiang at 516. This provides hedge funds with increased bargaining leverage in negotiations with distressed firms.

[60] 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 (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).

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 may lead to the bankruptcy of more firms, which will hurt the returns of the overall portfolio.

In terms of ability to engage in anti-competitive conduct, distressed-debt investors are involved in the governance of their targeted firms[61], 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, Jiang et al. examined the impact of hedge funds holding debt and equity on Chapter 11 outcomes[62] and found that hedge funds were involved in nearly 90% of all the bankruptcy proceedings that had taken place until their study. They also found 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.[63] 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.[64] This lender behavior is especially true for commercial lenders and borrowers.[65]

In the case of distressed-debt investors, Hotchkiss and 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."[66] 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.[67]

While the aforementioned articles relate debt funds activity to outcomes, the issue of collusion generally has not been empirically examined by

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[61] Hotckiss at 402 (finding 27.8% of the sample debt holder firms join the board of portfolio companies).

[62] We Jiang et al., *Hedge Funds and Chapter 11*, J. FIN. 513 (2012).

[63] Id.

[64] Edith S. Hotchkiss & Robert M. Mooradian, *Vulture Investors and the Market for Control of Distressed Firms*, 43 J. FIN. ECON. 401, 403 (1997).

[65] Robert M. Bushman, *Price discovery and dissemination of private information by loan syndicate participants*, 48 J. ACCOUNT. RES., 921 (2010); Michael Minnis & Andrew Sutherland, *Financial statements as monitoring mechanisms: evidence from small commercial loans*, 51 J. ACCOUNT. RES. 197 (2017).

[66] Hotchkiss & Mooradian, *supra* note 67 at 402.

[67] Id.

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 restructurings or bankruptcy proceedings.[68] This essay 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.[69] Directors have certain fiduciary duties to promote the interests of shareholders: the duty of care and the duty of loyalty.[70] A critique of the common-ownership 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.[71] Fiduciary duties generally limit the potential for anti-competitive conduct for directors and managers.

From a fiduciary duty standpoint, for as long as a corporation is solvent, the fiduciary duties of the directors pertain only to the shareholders.[72] While in *Credit Lyonnaise*[73] Delaware law tried to shift fiduciary protection from equity holders to debtholders, this view was overturned in *Gheewalla*.[74] In *Gheewalla*, the Delaware Supreme Court ruled that "[t]o recognize a new right for creditors to bring direct fiduciary claims against [certain] directors

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[68] Jongha Lim, *The Role of Activist Hedge Funds in Financially Distressed Firms*, 50 J. Fin. & Quant. Analysis 1321 (2015). This coordination on its own is not anti-competitive. See *CompuCredit Holdings Corp. v. Akanthos Capital Management LLC et al*., 661 F.3d 1312 (2011).

[69] Stephen M. Bainbridge, *Director Primacy: The Means and Ends of Corporate Governance*, 97 Nw. U. L. REV. 547, 580-82 (2003); Lucian Arye Bebchuk, *The Case for Increasing Shareholder Power*, 118 HARV. L. REV. 833, 837-39 (2005).

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

[71] Hemphill & Kahan, *supra* note 1 at 1392.

[72] Lipson, *Governance* at 1037.

[73]Credit Lyonnais Bank Nederland, N.V. v. Pathe Communications Corp., 1991 WL 277613 (Del. Ch. 1991)(noting that the 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.").

[74] North American Catholic Educational Programming Foundation, Inc. v. Gheewalla, 930 A.2d 92 (Del. 2007)(noting that "the 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.").

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."[75] More recently, in *Quadrant*,[76] 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.[77]

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

The limits to the fiduciary duties of 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.

IV. ANTITRUST AND DEBT

Since the case law developments in the mid-2000s, antitrust law has

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[75] Id.

[76] Quadrant Structured Prods. Co. v. Vertin, 115 A.3d 535 (Del. Ch. 2015).

[77] Id. at 546-547. This does not preclude all debt related fiduciary duties, such as derivative shareholder suits. Derivative suits are an important part of corporate governance. John C. Coffee, Jr., *Litigation Governance: Taking Accountability Seriously*, 110 COLUM. L. REV. 288 (2010); Reinier Kraakman et al., *When Are Shareholder Suits in Shareholder Interests?*, 82 GEO. L.J. 1733 (1994); 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 (1991); Robert B. Thompson & Randall S. Thomas, *The Public and Private Faces of Derivative Lawsuits*, 57 VAND. L. REV. 1747 (2004). 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, event for distressed firms. Jonathan C. Lipson, *Governance in the Breach: Controlling Creditor Opportunism*, 84 S. CAL. L. REV. 1035, 1037 (2011) (noting that "real control shifts away from directors and shareholders to creditors."); Edward J. Janger & Adam J. Levitin, *Badges of Opportunism: Principles for Policing Restructuring Support Agreements*, 13 BROOK. J. CORP. FIN. & COM. L. 169, 270 (2018) ("In insolvency, the fiduciary duty of loyalty expands to contemplate creditors as well as shareholders…).

played a smaller role in enforcement in regulated financial markets.[78] 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 those where antitrust law and policy can play its traditional role of policing against anti-competitive behavior.

While legal scholarship has determined that debt contracting may improve consumer welfare,[79] 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, it is when a firm is more troubled financially that the interest of debtholders may impact the structure of a given market. 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 limits under the current doctrine to preclude such behavior. The Supreme Court has referred to collusion as the "supreme evil of antitrust."[80] Nevertheless, identifying when an illegal behavior occurs is not always very clear under Section 1 of the Sherman Act.[81]

The easiest agreements to prosecute are express agreements with direct evidence of wrongdoing. 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.[82] This notwithstanding,

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[78] Samuel N. Weinstein, *Financial Regulations In The (Receding) Shadow Of Antitrust*, 91 TEMPLE L. REV. 447 (2019); Howard Shelanski, *Antitrust and Deregulation*, 127 YALE L.J. 1922, 1940-1944 (2018); Stacey L. Dogan & Mark A. Lemley, *Antitrust Law and Regulatory Gaming*, 87 TEX. L. REV. 685, 685–86 (2009); Verizon Communications Inc. v. Law Offices of Curtis V. Trinko, LLP, 540 U.S. 398 (2004); Credit Suisse Securities (USA) LLC v. Billing, 551 U.S. 264 (2007).

[79] Barry E. Adler & Marcel Kahan, *The Technology of Creditor Protection*, 161 U. PA. L. REV. 1773 (2013); Edward B. Rock, *Adapting to the New Shareholder-Centric Reality*, 161 U. PA. L. REV. 1907 (2013); George Triantis, *Exploring the Limits of Contract Design in Debt Financing*, 161. U. PA. L. REV. 2014 (2013).

[80] Verizon Communications v. Law Offices of Curtis V. Trinko, 540 U.S. 398, 408 (2004).

[81] Louis Kaplow, *On the Meaning of Horizontal Agreements in Competition Law*, 99 CALF. L. REV. 683, 683-84 (2011) ("Upon examination, however, commonly offered views of the law's conception of agreement prove to be difficult to articulate in an operational manner, at odds with key aspects of legal doctrine and practice, and unrelated to core elements of modern oligopoly theory.").

[82] Vivek Ghosal & D. Daniel Sokol, *The Rise and (Potential) Fall of U.S. Cartel*

much of the legal difficulty with regard to antitrust law concerns determining if an anti-competitive action has been done in the absence of an express agreement, and 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).[83] Thus, the causal mechanisms for tacit collusion under Sherman Act Section 1 beyond mere structural incentives are difficult to prove for purposes of establishing antitrust liability.[84]

This limitation on tacit agreement is longstanding and can be traced to as far back as *Theater Enterprises* in 1954,[85] perhaps with antecedents in *U.S. Steel*[86] and *Eastern States Retail Lumber Dealers*[87], under which case law has not made it possible to establish that mere parallel conduct constitutes an antitrust violation.[88]

Enforcement, 2020 U. ILL. L. REV. 471.

[83] See Areeda & Hovenkamp 14B ¶1416. ("Parallel behavior by competitors might reflect a conspiracy among them... Of particular importance [a]re 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 (2017).

[84] This 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 5% 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 it can better dictate terms for example to more than one supplier or customer (more of hub and spoke collusion that has both horizontal and vertical elements) and/or two pure horizontal firms in the same industry to allow for tacit collusion.

[85] Theatre Enterprises, Inc. v. Paramount Film Distributing Corp., 346 U.S. 537 (1954).

[86] United States v. U.S. Steel Corp., 251 U.S. 417, 440-42 (1920).

[87] Eastern States Lumber Ass'n v. United States, 234 U.S. 600 (1913).

[88] Kovacic & Shapiro, *supra* note 3, 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. KANSAS L. REV. (forthcoming 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 v. United States, 306 U.S. 208, 227 (1939) regarding the meaning of tacit collusion. In *Interstate Circuit*, the critical fact was the common invitation, which is a form of private communication. 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) (Posner, J.) (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

While several professors suggest ways to improve the reach of antitrust law to address tacit collusion under Sherman Act Section 1, the courts' efforts to create doctrinal coherence in the area have proven to be limited.[89] Typically therefore, the courts require plus factors to determine antitrust liability for tacit collusion.[90] Due to lack of consistency 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 Kaplow suggests.[91] Rock and Rubinfeld provide an example of the majority view of why mere tacit collusion should not be the legal standard. The concern is one of legal administrability given the ambiguous effects of tacit collusion. They note, "[I]t is impracticable to write or enforce an injunction enjoining firms not to take competitors into account when competitors will inevitably respond."[92] Case law such as *Matsushita* and *Twombly* supports such resistance to mere parallel conduct.[93]

Given how increased concentration may effectively create tacit collusion

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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); Graphics Processing Units Antitrust Litig., 527 F. Supp. 2d 1011, 1014–17 (N.D. Cal. 2007) (finding that defendants participation in 30 industry conferences insufficient); Thompson Everett v. National Cable Adver., 57 F.3d 1317 (4th Cir. 1995). This is not to argue that a finding based on mere tacit collusion without sufficient plus factors is incorrect. See Max Huffman, *Iqbal, Twombly, and the Expected Cost of False Positive Errors*, 20 CORNELL J.L. & PUB. POL'Y 1 (2010).

[89] Wentong Zheng, *A Knowledge Theory of Tacit Agreement*, 9 HARV. BUS. L. REV. 399 (2020); Page, supra note 83, at 621-22.

[90] William E. Kovacic et al., *Plus Factors and Agreement in Antitrust Law*, 10 MICH. L. REV. 393 (2011).

[91] LOUIS KAPLOW, COMPETITION POLICY AND PRICE FIXING (2013). Kaplow's theory builds upon Richard Posner, *Oligopoly and the Antitrust Laws: A Suggested Approach*, 21 STAN. L. REV. 1562 (1969).

[92] Rock & Rubinfeld, *Common Ownership, supra* note 1.

[93] Bell Atlantic Corp. v. Twombly, 550 U.S. 544, 556 (2007); Matsushita Electrical Industrial Co., Ltd. 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."). See also Donald F. Turner, *The Definition of Agreement Under the Sherman Act: Conscious Parallelism and Refusals to Deal*, 75 HARV. L. REV. 655 (1962).

by oligopolists, even legal tacit collusion, one antitrust critique on the growing concentration in certain industries is that it leads to higher prices.[94] From the 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.[95]

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.[96] The following different mechanisms of tacit collusion, without additional plus factors, will not lead to a viable Sherman Act Section1 claim.

1. Multimarket Contact

Multimarket contact suggests that the more extensive the overlap that exists across firms in the markets that the firms serve, the larger the benefits of collusion will be.[97] The strength of the multimarket across an industry provides a mechanism through which firms can make collusion more likely. Empirical studies across industries such as airlines,[98] audit firms,[99] cement,[100] and telecommunications[101] 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

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[94] 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.")

[95] Miguel A Fonseca.& Hans-Theo Normann, *Explicit vs. tacit collusion—The impact of communication in oligopoly experiments*, 56 EURO. ECON. REV. 1759 (2012).

[96] United Airlines, Inc. v. U.S. Bank N.A., 406 F3d 918 (7th Cir. 2005).

[97] Douglas Bernheim & Michael D. Whinston, *Multimarket Contact and Collusive Behavior*, 21 RAND J. ECON. 1 (1990).

[98] Federico Federico & Jonathan Williams, *Does multimarket contact facilitate tacit collusion? Inference on conduct parameters in the airline industry*, 45 RAND J. ECON. 764 (2014).

[99] Simon Dekeyser et al., Multimarket Contact and Mutual Forbearance in Audit Markets, (working paper 2019), available at https://ssrn.com/abstract=3459150.

[100] Ivette Jans & David Rosenbaum, *Multimarket contact and pricing: Evidence from the U.S. cement industry*, 15 INT'L J. INDUST. ORG. 391 (1997).

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

lending either to distressed firms or to firms in bankruptcy. A theoretical study suggested that debt syndication (which is a repeat-player industry across different firms) is another possible mechanism of collusion.[102]

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.[103] Collusion is usually difficult to maintain because the incentives to cheat may be strong.[104] That is, firms must successfully coordinate their prices and outputs to collude with each other.[105] Disclosure reduces opacity, which makes it easier to monitor cheating. Bourveau et al. 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. This information exchange created legal tacit collusion through the reduction of information costs.[106] In another empirical study, Aryal et al. identified tacit collusion by signaling to competitors in analyst calls.[107]

This empirical work on the disclosure of information to stabilize cartels builds from earlier insights on how more information about the rival firms strengthens collusion.[108] This particularly holds when the same firms interact

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[102] John William Hatfield et al., *Collusion in Markets with Syndication*, 128 J. POL. ECON. 3779 (2020).

[103] Pawliczek & Skinner, Common Ownership and Voluntary Disclosure (June 8, 2018), available at https://ssrn.com/abstract=3002075; Park et al, Disclosure Incentives When Competing Firms Have Common Ownership (Nov. 2, 2018), https://ssrn.com/abstract=3271940.

[104] 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 (1984); Margaret Levenstein & Valerie Suslow, *Cartels and Collusion: Empirical Evidence, in* OXFORD HANDBOOK OF INTERNATIONAL ANTITRUST ECONOMICS, VOL. 2 (Roger D. Blair & D. Daniel Sokol, eds. 2014).

[105] Margaret C. Levenstein & Valerie Y. Suslow, *What Determines Cartel Success*, 44 J. ECON. LIT. 43 (2006).

[106] Thomas Bourveau et al., *Corporate Disclosure as a Tacit Coordination Mechanism*, [_] J. Account. Resrch. [_] (2020 forthcoming).

[107] Gaurab Aryal et al., Public Communication and Collusion in the Airline Industry, (working paper 2018), available at https://bfi.uchicago.edu/wp-content/uploads/Public-Communication-and-Collusion-in-the-Airline-Industry.pdf.

[108] 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) Edward J. Green & Robert H. Porter, *Noncooperative Collusion Under Imperfect Price Information*, 52 ECONOMETRICA 87 (1984).

on a repeat basis.[109] 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, Carrizosa and Ryan identify 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…"[110] They found that debt covenants indeed provide lenders with important information about the borrowers, which the lenders in turn use for their commercial advantage.[111]

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.[112] 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.[113]

3. Signaling through Bankruptcy Filings

By its nature, bankruptcy requires coordination across firms.[114] This is not to suggest that much of this coordination is anti-competitive; rather, there are legal means through which firms can signal to each other to 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

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

[110] Richard Carrizosa & Stephen G. Ryan, *Borrower private information covenants and loan contract monitoring*, 64 J. ACCOUNT & ECON. 313 (2017).

[111] Carriosa at 336.

[112] Carrizosa at 314.

[113] Carrizosa at 314. This information may create significant hold-up problems that benefit the lender over the borrower.

[114] 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, 105–09 (1984).

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.[115]

In two doctrinal areas, the courts have allowed certain behaviors that may lead to legal tacit collusion in bankruptcy. For example, *Noerr−Pennington* immunity (coordination to petition the government) applies in the bankruptcy context. Information sharing is another area that courts have recognized has pro-competitive purposes in the bankruptcy antitrust setting. One example for both these settings is Judge Easterbrook's opinion in *United Airlines v. U.S. Bank N.A.* Judge Easterbrook explained:

> 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 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.[116] (citations omitted)

More recently, limits to robust antitrust enforcement among funds emerged when CompuCredit Holdings Corp. sued 21 hedge funds. These hedge funds collectively held 70% of the bonds that CompuCredit had issued 5 years earlier. CompuCredit unsuccessfully alleged that these hedge funds had been part of a conspiracy to refuse accepting a tender offer that CompuCredit had made to repurchase these bonds.[117] The analytical reasoning behind the decision was rudimentary, but the allegations suggest a

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[115] See generally, ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT (OECD), UNILATERAL DISCLOSURE OF INFORMATION WITH ANTICOMPETITIVE EFFECTS 24 (2012), www.oecd.org/daf/competition/Unilateraldisclosureofinformation2012.pdf at 1 ("Greater transparency in the market is generally efficiency enhancing and, as such, welcome by competition agencies. However, it can also produce anticompetitive effects by facilitating collusion or providing firms with focal points around which to align their behaviour.").

[116] 406 F.3d 918, 925 (7th Cir. 2005).

[117] CompuCredit Holdings Corp. v. Akanthos Capital Mgt., LLC, 661 F.3d 1312 (11th Cir. 2011).

mechanism through which bondholders may be able to collude with each other.

4. Learning by Doing

Knowledge within and across firms may develop through "learning by doing," which is experiential learning within the firm.[118] If effectively exploited, learning by doing can improve firm outcomes.[119] 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.[120]

Debt covenants terms are oftentimes similar in their language.[121] The value of increased uniformity in contracts is that a similar template reduces the transaction costs.[122] Such contracts also reduce the litigation costs because certain contractual terms have greater legal certainty.[123]

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 bonds are based on boilerplate language.[124] Similarly, many terms tend to get used time and

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118 LINDA ARGOTE, ORGANIZATIONAL LEARNING: CREATING, RETAINING AND TRANSFERRING KNOWLEDGE (1999); Roger D. Blair et al., *Analyzing Vertical Mergers: Accounting for the Unilateral Effects Tradeoff and Thinking Holistically About Efficiencies*, 27 GEO. MASON L. REV. 761 (2020).

119 William Mitchell et al., *Foreign entrant survival and foreign market share: Canadian companies' experience in United States medical sector markets*, 15 STRAT. MGMT J. 555 (1994).

120 Danial Asmat, Collusion Along the Learning Curve: Theory and Evidence from the Semiconductor Industry, EAG 16-4 working paper (2019), available at https://www.justice.gov/atr/collusion-along-learning-curve-theory-and-evidence-semiconductor-industry.

121 Gus De Franco, Vasvari, Florin P. and Vyas, Dushyantkumar and Wittenberg Moerman, Regina, Similarity in Bond Covenants (April 14, 2016), available at: https://ssrn.com/abstract=2288723.

122 Jason S. 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 (2006); Robert A. Hillman & Jeffrey J. Rachlinski, *Standard-Form Contracting in the Electronic Age*, 77 N.Y.U. L. REV. 429, 437-38 (2002).

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

124 Marcel Kahan & Michael Klausner, *Standardization and Innovation in Corporate Contracting (or "The Economics of Boilerplate")*, 83 VA. L. REV. 713 (1997); W. Mark C.

time again by the same creditor/underwriter.[125] 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.[126] 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.[127]

5. Executive Compensation

Executive compensation may be a mechanism of reinforcing collusion.[128] A recent study suggests that executive compensation and the use of executive compensation consultants within the same product market can make tacit collusion more likely. That is, the use of relative performance benchmarking of firms within the same industry seems to make tacit collusion more likely.[129] 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. Even if debtholders do not formally control the firms, they may use incentive-based contracts for the executives they will place within the firms. If the compensation scheme is calibrated to the right level, this may encourage increased coordination through tacit collusion if done across the same industry.[130]

Weidemaier, *Disputing Boilerplate*, 82 TEMPLE L. REV. 1 (2009).

[125] Gus De Franco et al., *Similarity in the Restrictiveness of Bond Covenants*, Euro. Account. Rev. (forthcoming).

[126] George A. Hay & Daniel Kelley, *An Empirical Survey of Price Fixing Conspiracies*, 17 J.L. & ECON. 13, 15 (1974); Stigler, *supra* at note 102.

[127] Charles K. Whitehead, *The Evolution of Debt Covenants, the Credit Market, and Corporate Governance*, 34 J. CORP. L. 101, 112 (2009); Douglas W. Diamond, *Monitoring and Reputation: The Choice Between Bank Loans and Directly Placed Debt*, 99 J. POL. ECON. 689, 713 (1991). Lawyers representing these firms are also repeat players and may lead to information leakage and collusion across lenders or borrowers.

[128] Miguel Anton et al., Common Ownership, Competition, and Top Management Incentives (working paper 2018) available at https://ssrn.com/abstract=2802332. But see Erik P. Gilje et al., Who's Paying Attention? Measuring Common Ownership and Its Impact on Managerial Incentives, working paper (2018), available at https://rodneywhitecenter.wharton.upenn.edu/wp-content/uploads/2018/12/08-10.levit_.pdf ("ownership overlap is a necessary but insufficient condition for shifting managerial incentives.").

[129] Sangeun Ha, et al., Motivating Collusion (2019 working paper).

[130] Id. (identifying how this can be done for publicly traded and privately traded firms).

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

The strategy of hedge funds in corporate governance has received increasing academic attention.[131] Hedge funds can be divided into two different types: those that use debt and those that do not.[132] As Kahan and Rock explain:

> 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.[133]

Whereas in the common-ownership literature there is a concern that index funds are more likely to be more pro-management rather than to side with activist investors,[134] on the debt side, 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.[135] Such investors may also behave strategically.[136]

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[131] Colleen Honigsberg, *Hedge Fund Regulation and Fund Governance: Evidence on the Effects of Mandatory Disclosure Rules*, 57 J. ACCOUNT. RSRCH. 845 (2019); Marcel Kahan & Edward B. Rock, *Hedge Funds in Corporate Governance and Corporate Control*, 155 U. PA. L. REV. 1021 (2007).

[132] John Morley, *The Separation of Funds and Managers: A Theory of Investment Fund Structure and Regulation*, 123 YALE L.J. 1228, 1236 (2014).

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

[134] Matthew Backus et al., The Common Ownership Hypothesis: Theory and Evidence, 2019 working paper, at 3, available at https://www.brookings.edu/wp-content/uploads/2019/02/ES_20190205_Common-Ownership.pdf.

[135] Jonathan Lipson, *The Shadow Bankruptcy System*, 89 B.U. L. REV. 1609, 1615 (2009).

[136] Lipson, *Shadow* at 1617.

Coordinated behavior across hedge funds is already a part of corporate governance. As Coffee explains, "[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)."[137] 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 5%.[138] As there is a small number of repeat players and limited relational contracting matter, there may be legal tacit collusion signals akin to the "wolf pack" situation on the equities side across 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*.[139] However, the mechanism at play also suggests a more general antitrust angle with regard to bondholder communication across firms in the same industry.

Hedge fund Third Point LLC made it known publicly that it was purchasing shares of Sotheby's stock through its filings with the SEC. 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. 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). Then Third Point amended its Schedule 13D to note an increase in its ownership stake closer to the 10% trigger of the rights plan. It also announced in its amended filing that it intended to nominate three directors.

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. The Sotheby's board rejected Third Point's request when they assessed that Third Point was likely to win the proxy contest if it would acquire an additional 10% of the common stock of Sotheby's.

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[137] John C. Coffee and Darius Palia, The Wolf at the Door: The Impact of Hedge Fund Activism on Corporate Governance (working paper 2015), available at https://ssrn.com/abstract=2656325 at 6.

[138] Coffee at 29.

[139] 2014 WL 1922029 (Del. Ch. May 2, 2014).

While the case before the Chancery Court revolved around whether the threat was cognizable under *Unocal*,[140] for purposes of this essay, 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 case explained the mechanism in which signals through filings would alert other activists about how to tacitly coordinate as to strategy. This was illustrated by the court 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 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*.[141]

Thus, even with a small share of equity, working by signaling to other activists could transform the very business strategy of Sotheby's.

An empirical study showed that corporate disclosure could allow for increased collusion among firms.[142] 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. This in turn may facilitate tacit collusion.[143] The collusive mechanism for debt based collusion may be bankruptcy filings or press releases.

V. POSSIBLE SOLUTIONS

[140] Unocal Corp. v. Mesa Petroleum Co., 493 A.2d 946, 954 (Del.1985).

[141] Ruprecht at 5 (italics added for emphasis).

[142] Thomas Bourveau et al., *Corporate Disclosure as a Tacit Coordination Mechanism: Evidence from Cartel Enforcement Regulations*, 58 J. Account. Resrch. 295 (2020)..

[143] Andrea Pawliczek et al., Facilitating Tacit Collusion: A New Perspective on Common Ownership and Voluntary Disclosure (working paper 2019).

A. Modification of Antitrust Merger Law

As it is difficult to prove tacit agreement under Sherman Act Section 1, a more effective mechanism of addressing debt control collusion is through the merger process under Section 7 of the Clayton Act. First, Section 7 is superior to Sherman Act Section 1 with respect to establishing liability. Sherman Act Section 1 does not condemn conscious parallelism, but conscious parallelism can have all the negative consequences of explicit price collusion. In contrast, Clayton Act Section 7 can condemn a transaction that increases the likelihood of conscious parallelism even though such parallelism does not violate Sherman Act Section 1. Thus, Clayton Act Section 7 can prevent anti-competitive conduct that Sherman Act Section 1 does not address. Second, Clayton Act Section 7 is superior to Sherman Act Section 1 with respect to remedies. Clayton Act section 7 is geared toward enjoining or undoing transactions while Sherman Act Section 1 is less so.[144] Third, Clayton Act Section 7 is superior to Sherman Act Section 1 with respect to identifying problematic transactions. Merger law already has a reporting requirement. Although the 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 Sherman Act section 1, which has no similar established reporting mechanism. Finally, the nature of the problem is typically not one of hub and spoke and Sherman Act Section 1's vertical firm issues.[145] Rather, debt-based collusion is about financing, which affects the firm's budget constraints, rather than its production function.

The basic premise regarding using Clayton Act Section 7 to limit the coordinated effects is that the fewer the number of firms in a given market, the easier it is to collude.[146] This theoretical insight has made its way into the dicta of a number of cases.[147] *Heinz* warns about the dangers of coordinated

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

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

[146] Edward J. Green et al., *Tacit Collusion in Oligopoly*, in OXFORD HANDBOOK OF INTERNATIONAL ANTITRUST ECONOMICS, Vol. 2 (Roger D. Blair & D. Daniel Sokol eds. 2014) (describing the economics of tacit collusion). Of course, number of firms is but one factor to consider. Others include ease of entry, excess capacity, size and cost asymmetries, multi-market contact, buyer power, demand shocks, demand uncertainty, price transparency, ease of communication.

[147] 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."); Hospital Corp. of Am. v. FTC, 807 F.2d 1381, 1387 (7th Cir. 1986) (Posner, J.) ("The fewer competitors there

effects[148], but most of the merger challenges brought in the courts focus on unilateral effects.[149] Thus, including debt based merger control also has the benefit of reinvigorating coordinated effects analysis.

To understand why a reformulated Clayton Act Section 7 can be an effective remedy against debt collusion, it is important to understand the current limits of merger law. The HSR Act fundamentally transformed merger review under the Clayton Act.[150] It created an administrative mechanism for the antitrust agencies to pre-clear or challenge mergers prior to their consummation.

At the time of the drafting of the HSR Act, the acquisition of debt was seen as not problematic and therefore not requiring notification. As such, it was one of the investor exemptions to HSR reporting.[151] 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.[152] 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.[153]

Further, the academic knowledge regarding the use of debt as a control mechanism has become more refined. This learning of firm governance across finance, economics, and law has transformed scholarship. Yet, prior studies that focused on creditor opportunism had not addressed partial

are in a market, the easier it is for them to coordinate their pricing without committing detectable violations of section 1 of the Sherman Act, which forbids price fixing.").

[148] 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.");

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

[150] William Blumenthal, *Introductory Note to Symposium, Twenty Years of Hart-Scott-Rodino Merger Enforcement*, 65 ANTITRUST L.J. 813 (1997); 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 (1997).

[151] 15 U.S.C. § 18a(c).

[152] Elisabeth de Fontenay, *Private Equity's Governance Advantage: A Requiem*, 99 BU L. REV. 1095, 1098-1102 (2019).

[153] Lipson, *Governance* at 1038-39; Charles K. Whitehead, *The Evolution of Debt: Covenants, the Credit Market, and Corporate Governance*, 34 J. CORP. L. 641 (2009)(detailing changes to debt).

control and the antitrust implications.[154] The theory behind these concerns regarding merger law should also apply to debt.

The current US 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, which is ironic because the bases for merger enforcement and antitrust law are more generally the economic effects of a merger. Yet, the 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. That it is not low stock ownership but no stock ownership that can create competition problems based on control is not conceptually difficult to digest.

For an investor to avail of the passive-investor exemption, an investor must satisfy two criteria under the HSR Act. First, the acquisition of stock must be made solely for investment purposes (passive investment). Second, the stock acquired in the transaction must not be used to lessen the competition substantially or to attempt to do so.[155] 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.[156] In practice, these two criteria have been narrowly construed by courts and the antitrust agencies when ownership led to influence in business decisions.[157] The antitrust agencies have articulated that an investment exemption means that an investor has "no intention of participating in the formulation, determination, or direction of the basic business decisions of the issuer."[158]

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[154] Lipson, Governance; Fischel; Victor Brudney, *Corporate Bondholders 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 et al., *Bankruptcy and the Resolution of Financial Distress, in* 2 HANDBOOK OF 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).

[155] 15 U.S.C. § 18.

[156] United States v. E.I. du Pont de Nemours & Co., 353 U.S. 586, 597-98 (1957).

[157] Elhauge, *Horizontal Shareholding* at 1305-06.

[158] 16 C.F.R. § 801.1(i)(1) (2018). For a more detailed analysis, see Kara Kuritz & Matthew S. Wheatley, *An Antitrust Roadmap for Private Equity Investment*, 34 ANTITRUST 70 (2020).

Most debt-related deals would not trigger the activity that suggests influence or control. Two relatively recent investor exemption cases that DOJ Antitrust has brought involving stock would suggest the type of situations in which debt might have an analogous trigger regarding influence. The first case involves Third Point's investment in Yahoo. Third Point's actions that suggested influence included inquiring regarding the interest of the candidates in the CEO board positions, assembling an alternate slate of board-of-director candidates, drafting correspondence to Yahoo indicating that Third Point candidates were prepared to join the board, undertaking internal deliberations regarding a proxy battle, and making public statements about a potential slate of directors.[159]

The second case involves ValueAct. DOJ Antitrust sued ValueAct, alleging that the firm sought to influence Halliburton and Baker Hughes in their merger regarding deal terms and deal strategy.[160] These cases show that even with a small number of shares, it is possible for investors to exercise control. 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.[161] Take three areas of governance as examples: standing for derivative suits, determining control, and determining the ultimate fiduciary. Background legal rules also provide bargaining for ex ante legal contracting in bond contracts, which can shape debt governance.[162]

Who controls the corporation for purposes of fiduciary duties is largely contextual rather than one based on who owns the majority of shares. One of the best known cases involving the entire fairness doctrine is *Kahn v. Lynch Communications Sys., Inc*.[163] In this case, the Delaware Supreme Court found

[159] United States v. Third Point Offshore Fund, Ltd., No. 1:15-cv-01366 (D.D.C. Aug. 24, 2015) at 6.

[160] Complaint at 2, United States. v. VA Partners I, LLC, No. 3:16-cv-01672 (D.D.C. Apr. 4, 2016), available at https://www.justice.gov/atr/file/838076/download.

[161] 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 legal independent of other unrelated sections.

[162] Adam B. Badawi, Debt Contract Terms and Creditor Control (November 20, 2018), available at: https://ssrn.com/abstract=3066853 or http://dx.doi.org/10.2139/ssrn.3066853.

[163] 638 A.2d 1110 (Del. 1994).

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 that time, courts have examined if a shareholder "actually controls the board's decisions about the challenged transaction."[164] The Delaware courts have held that the amount of stock necessary to be controlling has been as low as a 17.3% stake.[165]

Delaware law also examines substance over form in determining the ultimate fiduciary. For example, in *In re USACafes, L.P. Litigation*,[166] 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.[167] Similarly, in *Pepsi-Cola Bottling Co. of Salisbury, Md. v. Handy, No. 1973-S*[168], 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.

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 that 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 5% notification threshold for ownership both in the Antimonopoly Act and the Banking Act with regard to debt. Both restrictions restrict the bank's control on the acquired firm.

The Japan Fair Trade Commission (JFTC) merger guidelines explicitly mention "financial relationship"[169] as a factor for deciding whether a firm is

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[164] In re Crimson Exploration Inc. S'holder Litig., 2014 WL 5449419, at *12 (Del. Ch. 2014).

[165] *See* In re Zhongpin Inc. S'holder Litig., 2014 WL 673547, at *8 (Del. Ch. 2014) (holding that 17.3% stake was a controlling interest), reversed on other grounds by In re Cornerstone Therapeutics Inc. S'holder Litig., 115 A.3d 1173 (Del. 2015).

[166] 600 A.2d 43, 49 (Del. Ch. 1991)

[167] This is longstanding under Delaware corporate law. See Southern Pacific 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 fiduciary duty to the shareholders of the downstream corporation).

[168] 2000 WL 364199 (Del. Ch. Mar. 15, 2000).

[169] JFT Merger Guidelines at 4, available at

in a "joint relationship" with another firm. If the acquiring firm is not the top shareholder or does not own more than 20% of a target's shares, the JFTC examines a number of factors to decide if the acquiring firm and the acquired firm are in a "joint relationship." The JFTC presumes that if the two firms are in a "joint relationship," they will operate their businesses in a unified way whether fully or partially.[170]

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 that policy gets to debt-based control is the consolidated jurisdictional notice, which gives the EC the right to look into debt instruments.[171] There are a few cases that generally address the impact of debt between close competitors, but they are more in the context of debt constraining the ability of a firm to spend to improve its competitive position, although these cases mix both debt and equity with regard to the issues of control.[172]

3. United Kingdom

The United Kingdom (UK) competition regime recognizes that low levels of ownership and no ownership may give rise to competition concerns. This arises when there is "material influence" at less than 35% shareholdings, and in exceptional cases, less than 10-15%. This is largely a fact-specific inquiry.[173] There has been at least one case where a party used debt as a means

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https://www.jftc.go.jp/en/legislation_gls/imonopoly_guidelines_files/110713.2.pdf.

[170] Merger Guidelines at 2. See e.g., JFTC, Results of Investigation into the Proposed Merger between Nippon Steel Corporation and Sumitomo Metal Industries, Ltd., Dec. 14, 2011, available at https://www.jftc.go.jp/en/pressreleases/yearly-2011/dec/individual-000457_files/2011_Dec_14.pdf (showing that the presumption of a joint relationship can be rebutrted).

[171] Regulation (EC) No 139/2004 at ¶ 20 ("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.").

[172] 93/252/EEC: Commission Decision of 10 November 1992 relating to a proceeding pursuant to Articles 85 and 86 of the EEC Treaty (Cases No IV/33.440 Warner-Lambert/Gillette and Others and No IV/33.486 BIC/Gillette and Others), OJ L 116, 12.5.1993, at 21.

[173] CMA Merger guidance (para. 4.12 et seq), available at:

of having another firm front its investment in a competitor.[174] The rules around material influence are probably flexible enough to involve situations of pure debt.

Addressing this concern, the Competition Market Authority's merger guidance refers to lender control.[175] The guidance explains that board representation alone (without shareholding) can be sufficient for material influence. Further, the debt control hypothesis was recently flagged in the UK government's white paper on reforms to national security,[176] which noted that "there may be exceptional instances where loans or conditional acquisitions (like futures options) give rise to national security risks."[177]

D. Conclusion

Overall, antitrust policy must do a better job of incorporating decades of theoretical and empirical financial economics and in particular the economics of debt-based control into policy. While not all debt-related transactions have created competitive concerns, a subset of such transactions may do so. At present, neither Clayton Act Section 7 nor Sherman Act Section 1 provides 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 have identified that this sort of collusive activity is real and warrants review. Particularly during a period of economic tumult in which debt transactions may increase, antitrust thinking needs such an urgent change.

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https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/384055/CMA2__Mergers__Guidance.pdf

[174] Stora Koppargergs Bergslags AB/Swedish Match NV/The Gillette Company, Cm 1473 (1991).

[175] CMA Merger guidance para. 4.27 ("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 See OFT Decision: Completed acquisition by First Milk Limited of a 15% stake in Robert Wiseman Dairies plc (7 April 2005).

[176] See 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

[177] See also para. 3.92 et seq.

To better understand the specifics of how debt-based collusion and control work, empirical studies should be conducted to foster a better understanding of the industries where much commonly owned debt is seen. Debt control collusion may be higher when the industry 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 also offers possibilities to review securities filings, press releases, analyst calls, debt covenants, and other forms of communication in which tacit collusion may occur, to better understand these dynamics.[178]

Better empirics will allow potential plaintiffs to identify the circumstances under which creditors will have incentives to collude, and then working back, the circumstances under which creditors will have incentives to accumulate debt across firms in the same industry. Such an understanding will have implications on the industry conditions: the likelihood of debt becoming more valuable and the advantage of cross-company control versus 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 problem may manifest itself via tacit collusion are limited. However, under such circumstances, antitrust law faces an enforcement gap in the United States, which may lessen the competition and hurt consumers. Reformulating the HSR rules to add debt-based control as a factor that may produce an anti-competitive effect is the most effective way to address these concerns. Such an outcome recognizes the economic-based spirit of the existing HSR rules but applies that to a different form of transaction that has the same effect of influencing business decision making and substantially lessening competition.

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[178] For recent work on textual analysis and machine learning see Jonathan Clarke et al., *Fake News, Investor Attention, and Market Reaction*, INFO. SYST. RESRCH (2020)(forthcoming); Tarek A Hassan et al., *Firm-Level Political Risk: Measurement and Effects*, 134 Q.J. ECON 2135 (2019); David E. Pozen et al., *A Computational Analysis of Constitutional Polarization*, 105 CORNELL L. REV. 1 (2019)