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Stanford Law School
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"Antitrust For Institutional Investors"

by

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Note: It is expected that you will have reviewed the speaker's paper before the seminar.

Antitrust For Institutional Investors

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Abstract

With the increasing concentration of shares in the hands of large institutional investors, combined with greater involvement in corporate governance, the antitrust risk of common ownership has moved to center stage. Aggressively seeking to increase firm value, portfolio managers could end up exposing their firms and the portfolio companies to huge antitrust liability. In this Article, we address the fundamental antitrust issue raised by the presence of common ownership by large, diversified investors, namely, explicit coordination via institutional investors.

We then turn to more speculative concerns with tacit coordination that have garnered a great deal of attention and that, to our eyes, threaten to divert attention from the core antitrust issue. We critically examine the claims of this newer literature, as illustrated by Azar, Schmalz and Tecu (2017), that existing ownership patterns in the airline industry result in substantially higher prices. We then turn to the argument in Elhauge (2016) that relies on this newer literature and argues that existing ownership patterns make it likely that share acquisitions by institutional investors that give them ownership of all firms in oligopolistic industries (or increase their ownership shares) increase the likelihood of tacit coordination and thereby violate Section 7 of the Clayton Act. Finally, we find the policy recommendations of Posner, Scott Morton, and Weyl (2017) to limit the ownership shares of multiple firms in oligopolistic industries to be overly stringent. To limit the chilling effect of antitrust on the valuable role of institutional investors in corporate governance, we propose a quasi "safe harbor" that protects investors from antitrust liability when their ownership share is less than 15 percent, the investors have no board representation, and they only engage in "normal" corporate governance activities.

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Introduction

Imagine a portfolio manager, PM, who works for an airline sector fund that has a substantial shareholding in each of the major airlines.[1] Through marketing activities and through SEC Form 13F disclosure, the fund's holdings are well known to the industry. PM is an active participant in all communications with managers including earnings calls, investor relations calls, and industry conferences. PM is known for her sharp and intelligent focus on the details of airline operations. Beginning in 2009, as the economy came out of recession, PM followed the status of airline capacity closely. As excess capacity disappeared with the recovering economy, PM started to pressure the airlines to restrain their (historical) impulse to increase capacity in the face of increased demand. "Don't do that," PM argued repeatedly and to every airline in her fund's portfolio, "you will simply end up pushing down prices as you have done historically. This time around, be smart. Maintain your current levels of capacity and raise your prices. That way, you will make money, your competitors will make money, and my investors will make money. After decades of destructive competition, we finally have an opportunity for the airline industry to make some decent profits. But it will only happen if you folks behave responsibly and stop shooting yourselves in the foot." PM was very persistent, focused on these issues in every earnings call, every investor relations call, and at every other opportunity, public and private. To PM's great satisfaction, her efforts seem to have paid off, with the major airlines maintaining but not expanding capacity, few empty seats, approximately 10% higher ticket prices, and substantially higher airline profits. Her sector fund is up 20% on the year and money is flooding in. What could be bad about any of this?

To an antitrust lawyer, the scenario is troubling: this is potentially a "contract, combination in the form of trust or otherwise, or conspiracy in restraint of trade" in violation of Section 1 of the Sherman Act. Indeed, on these facts, a plaintiff's lawyer could argue that PM acted as a "cartel ringmaster" who organized a cartel among the competing airlines in order to restrict output and increase prices. If proved, this would be a per se violation of Section 1 of the Sherman Act and would expose the sector fund and the airlines to treble damage liability and potentially to criminal prosecution.

Consider an alternative scenario: suppose that PM and portfolio managers like her remain quiet on all airline earnings calls and remain passive in other interactions with airline executives. However, the airline executives, individually and independently, conclude that increasing capacity is not in their own airline's profit-maximizing self-interest, and capacity is maintained but not expanded. The result might turn out to be similar to the first scenario – higher fares. Under current antitrust law, this "tacit collusion" outcome would not violate the Sherman Act, since it would not be a conspiracy in restraint of trade. Yet some have recently argued that the overlapping of *shareholding* at levels well below control makes an anticompetitive outcome more likely because it creates a potential for tacit collusion, and is, or should be, a violation of Section 7 of the Clayton Act.

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[1] See, e.g., Fidelity's Select Air Transportation Fund, https://fundresearch.fidelity.com/mutual-funds/summary/316390798.

Antitrust law and policy are suddenly highly relevant for institutional investors because of the interaction of two forces: the increasing size and concentration of institutional investor holdings in concentrated industries that are ripe for cartelization; and the increasing interaction between firms and their shareholders.

In this article, we address the fundamental antitrust issues presented by common ownership by large, diversified investors. In Part I, we analyze the antitrust risks posed by our opening hypothetical. While we have no personal knowledge of any Section 1 violations, we are aware of litigation claiming otherwise.[2] Moreover, we believe that the policy issues raised by the two scenarios are sufficiently important that counsel for institutional investors and portfolio companies should view them with concern. In particular, large institutional investors and investor relations professionals should develop serious antitrust compliance programs.

In Part II, we expand our analysis from mainstream antitrust principles to consider the more speculative challenge to institutional investor common ownership raised by the second scenario. In a series of intriguing articles, several finance economists have presented evidence that existing patterns of common ownership are correlated with and may have caused higher prices in the airline industry and in commercial banking.[3] As we detail in Part II with respect to the airline industry, we are intrigued but ultimately unconvinced by the analysis of Azar, Schmalz and Tecu (2017) and related papers, and we are skeptical of their claim that common ownership of airlines stocks has caused a large increase in the price of tickets.

In Part III, we turn to the legal analysis of common and cross ownership. After outlining the existing legal framework, we address Prof. Einer Elhauge's argument, based on Azar et al.'s findings, that the existing ownership patterns violate Section 7 of the Clayton Act.[4]

In Part IV, we turn to the policy implications of this "new learning," by focusing on Posner, Scott Morton, and Weyl's proposed "solution" and likely responses to it, should it become law. Posner et al. propose forcing diversified institutional investors to choose between capping their holdings at 1%, investing in only one firm in any concentrated industry, or remaining entirely passive.[5] As we discuss in detail, we do not believe that institutional investors would opt for the Posner et al. proposal that they limit their investment to 1% or to a single firm in a concentrated industry. Indeed, they could more easily maintain their existing business model and avoid legal liability by assuming a completely passive stance in corporate governance in order to qualify for Section 7's "solely for investment" exemption

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[2] In Re Domestic Airline Travel Antitrust Litigation, U.S. District Court, District of Columbia, MDL Docket No. 2656, filed 3/25/16.

[3] Jose Azar, Martin C. Schmalz, and Isabel Tecu, "Anticompetitive Effects of Common Ownership," University of Michigan Stephen M. Ross School of Business, Working Paper No. 1235 (March 23, 2017), forthcoming in the Journal of Finance; José Azar, Sahil Raina & Martin C. Schmalz, Ultimate Ownership and Bank Competition (Jan. 8, 2016), http://ssrn.com/abstract=2710252 [https://perma.cc/UD9E-8H7M].

[4] Einer Elhauge, Horizontal Shareholding, 129 *Harv. L. Rev*. 1267 (2016).

[5] Eric A. Posner, Fiona Scott Morton, and E. Glen Weyl, "A Proposal to Limit the Anti-Competitive Power of Institutional Investors," (working paper, March 17, 2017), available at SSRN: https://ssrn.com/abstract=2872754 or http://dx.doi.org/10.2139/ssrn.2872754 or http://dx.doi.org/10.2139/ssrn.2872754, this issue.

(and, incidentally, the Posner et al. proposal). Because we think this would be an unfortunate response to fear of antitrust liability, and would undermine the long-term effort to encourage institutional investor involvement in corporate governance, we propose a quasi "safe harbor" of 15%, so long as investors only engage in "normal" corporate governance activities.[6]

We close with a brief conclusion.

Part I. The Antitrust Analysis of Portfolio Manager Jaw-Boning

A. The Section 1 Liability Risk

Section 1 of the Sherman Act outlaws "contracts, combinations . . . or conspiracies" in restraint of trade. The "agreement" requirement can be met by direct evidence of agreement among the parties to a conspiracy or by circumstantial evidence.[7] An unlawful conspiracy does not require simultaneous action by the conspirators and acceptance by competitors of an invitation to participate in a plan is sufficient.[8] The "ringmaster" who organizes competitors into a cartel, and shares in the profits generated, is a stock figure throughout the history of antitrust, who violates Section 1 either by organizing a cartel where there would not otherwise have been coordination or by converting what might have been viewed as lawful parallel conduct (i.e., tacit collusion) into unlawful collusive behavior.[9]

For example, in *American Column & Lumber Co. v. U.S.*,[10] competing hardwood manufacturers exchanged detailed price and production information through a trade association, the American Hardwood Lumber Manufacturers' Association. F.R. Gadd, the Association's "Manager of Statistics," worked diligently to "organize" the hardwood lumber industry through an "Open Competition Plan." In meetings, market letters and other jaw-boning, Gadd knitted the competing hardwood manufacturers into a conspiracy in violation of Section 1.

In *U.S. v. American Linseed Oil Co.,*[11] the agreement was organized by one Julian Armstrong who operated under the name "Armstrong Bureau of Related Industries." Linseed oil manufacturers subscribed to the bureau, sharing their most intimate pricing and production data. The bureau, for its part, committed to using its "best efforts to organize the linseed oil, cake and meal industry of the United States." The Bureau displayed great industry with the result that the prices of linseed oil stabilized. The manufacturers and the bureau were all held to have violated Section1.

In *Interstate Circuit v. U.S.*,[12] the ringmaster role was played by a large Texas movie theater chain. Frustrated with competition from lower price "second run" movie theaters that offered both

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[6] For a careful and comprehensive overview of the economics and law of "common ownership," see Patel, Menesh, Common Ownership, Institutional Investors, and Antitrust (April 15, 2017). *Antitrust Law Journal*, forthcoming. Available at SSRN: https://ssrn.com/abstract=2941031 or http://dx.doi.org/10.2139/ssrn.2941031.
[7] 1-1 Antitrust Law Developments 1B a ("defining 'agreement': distinguishing unilateral from concerted action").
[8] *Interstate Circuit*, 306 U.S. 208, 227 () citing numerous cases.
[9] *JTC Petroleum Co. v. Piasa Motor Fuels, Inc*., 190 F.3d 775, 778-79 (7th Cir. 1999)(Posner, J.)
[10] 257 U.S. 377 (1921).
[11] 262 U.S., 371 (1923).
[12] 306 U.S. 208 (1939).

lower ticket prices and double-features, Interstate simultaneously informed the competing movie distributors that it would no longer license movies from distributors "unless distributors agree that in selling their product to subsequent runs, that this 'A' product will never be exhibited at any time or in any theatre at a smaller admission price than 25 cents for adults in the evening." Furthermore, distributors were asked to agree that their films would not be exhibited in double-features. The Supreme Court held that "it was enough that, knowing that concerted action was contemplated and invited, the distributors gave their adherence to the scheme and participated in it. Each distributor was advised that the others were asked to participate; each knew that cooperation was essential to successful operation of the plan."[13]

Most recently, in the Apple e-books case,[14] these principles were reaffirmed and applied. There, the court held that Apple had acted as the ringmaster for a publisher level cartel. Threatened by Amazon's growing clout in the e-book business, the publishers embraced Apple's alternative "agency model" which allowed the publishers to control the resale prices for popular books. As part of this model, Apple imposed two key conditions: the prices charged by publishers on the Apple store must not be higher than Amazon's price; and publishers must agree to a "most favored nations" clause which created a disincentive to cut the wholesale price that the publishers charged Amazon and effectively forced publishers to move all their e-book retailers to an agency model.

Like other "ringmaster" examples, the Apple contract shared a key feature, namely, that the arrangement would benefit competitors only if everyone cooperated: "Apple understood that its proposed Contracts were attractive to the Publisher Defendants only if they collectively shifted their relationships with Amazon to an agency model—which Apple knew would result in higher consumer facing ebook prices." As in *Interstate Circuit*, this feature transformed what might have been viewed as an independent business decision into an invitation to collude, an invitation accepted by the competing publishers.[15] As the Second Circuit held, "the Publisher Defendants' shifting to an agency model with Amazon was the result of express collusion among them and . . . Apple consciously played a key role in organizing that collusion. The district court did not err in concluding that Apple was more than an innocent bystander."

European Competition Law takes the same approach. In the recent *AC-Treuhand v. Commission* case, the European Court of Justice held a consultant that had facilitated the establishment and operation of a cartel liable under Article 81 alongside cartel members.[16] The consultant "played an essential role in the infringements and was remunerated by suppliers inter alia for organizing regular cartel meetings at its Zurich premises. The consultant attended and actively participated in the meetings, collected and supplied sales data to the participants, monitored the implementation of the agreements, offered to act as a moderator in case of disagreements between them and encouraged

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[13] Id. at X; Accord: *Eastern States Retail Lumber Dealers' Ass'n v. US*, 234 U.S. 600 (1914).
[14] *U.S. v. Apple, Inc.,* 791 F.3d 290 (2nd Cir. 2015).
[15] *Id.* at 316.
[16] Case C-194/14 P, *AC Treuhand v Commission*, ECLI:EU:C:2015:717.

members to find compromises."[17] The ECJ rejected the consultant's argument that because it was not, itself, a competitor in the relevant market, it was not covered.[18]

Under this line of cases, the opening hypothetical would provide a basis for an antitrust claim that would surely withstand a motion to dismiss. In the hypothetical, Portfolio Manager plays the role of cartel facilitator that organizes and coordinates the cartel and shares in the resulting profits. As in the classic cases, the competitors know (a) that the ringmaster is talking with all the key competitors, and (b) that the success of the recommended course of action depends, in significant measure, on everyone going along. As discussed earlier, Section 1 of the Sherman Act does not require *direct* evidence of conspiracy; circumstantial evidence suffices.

At the same time, defendants will have some arguments – the more "unilateral" the PM's comments, the stronger the argument. To start, the airlines will argue that, in a concentrated market, restricting output is likely to be profit maximizing for each firm, without any agreement not to compete. There are two aspects to this argument. First, each airline individually could argue that, in an oligopoly, rational firms will learn over time that increasing capacity will often be counter-productive because of the predictable responses of competitors. Second, even if the airlines were acting in a consciously parallel fashion, as in our second hypothetical, achieving a tacitly collusive outcome does not violate Section 1 of the Sherman Act.[19]

With these defenses, the legal issue would be joined. To what extent did PM's efforts constitute an invitation to collude? Did PM'S actions help to achieve or stabilize the optimal parallel interdependent behavior? Did the airlines understand that PM was talking to their competitors? Did PM's efforts, in fact, affect how the airlines decided whether to increase capacity? How much of the increase in prices is a result of (permitted) interdependent conduct and how much a result of forbidden collusive behavior? On all these issues, the facts as developed in discovery would be critical to the outcome.

B. Controlling the Liability Risk

However a lawsuit might ultimately come out, the opening scenario would be a bad outcome for the airlines and the institutional investor. In this section, we approach the opening hypothetical from a counseling perspective: how can institutional investors control the antitrust risk? To our knowledge, institutional investors have not traditionally provided antitrust compliance training to their investing personnel.

In the industrial context, the antitrust risks presented by would-be "facilitators" are well known,[20] and preventive measures are adopted. Indeed, every well-advised trade association has an

[17] EU Commission press release, Antitrust: Commission welcomes Court judgment confirming cartel facilitator's liability, MEMO/15/5893 (Oct. 22, 2015).
[18] Accord Case AT.39861 — Yen Interest Rate Derivatives — C(2015) 432 final.
[19] *Theatre Enterprises. v. Paramount Film Distributing Corp*., 346 U.S. 537, 541 (1954); JTC.
[20] For the enforcement agencies' view, see Department of Justice/Federal Trade Commission. 2000. "Antitrust Guidelines for Collaborations among Competitors",

antitrust compliance policy. In thinking about developing a compliance program for institutional investors and investor relations professionals, these trade association guidelines are a good starting point, as they present an analogous problem of how to avoid facilitated inter-competitor coordination.

To start, guidelines describe activities that are off-limits. The American Seed Association guidelines are typical in prohibiting:

> 1. Discussion of pricing or promotional policies, other terms of sale, customer identity or geographic marketing areas.
>
> 2. Pressure on particular members or segments to adopt any particular program or policy.
>
> 3. Development of programs or policies designed to exclude some members of the industry.
>
> 4. Assisting members with problems peculiar to a single company.
>
> 5. Participation in unofficial or "rump" meetings on any subject which could not properly be discussed at an official meeting.[21]

In addition, procedures are also typically prescribed to avoid problems in advance:

> 1. An agenda for all meetings should be prepared in advance, adopted by the group (with any changes) at the outset of a meeting, and carefully adhered to.
>
> 2. Minutes of all meetings should be prepared, cleared with the Association's Washington office and circulated to all who attended. They should be approved at the next meeting.
>
> 3. Legal Counsel should review agendum and minutes and attend meetings involving antitrust-sensitive subjects.[22]

The final element – the presence of a trade association lawyer at all meetings involving antitrust-sensitive subjects – is critical. The lawyer's job is to prevent any discussion of competitively sensitive topics, and to create a record that documents that fact.

As institutional investors think through the risks highlighted by the opening hypotheticals, the core antitrust compliance goal is to prevent an active portfolio manager from becoming a cartel ringmaster or facilitator. Paralleling trade association guidelines, portfolio managers will need guidance on what topics they are precluded from discussing, and what procedures must be followed in advance of communications. The challenge, of course, is that these sorts of guidelines will be resisted by portfolio managers who will complain, with reason, that (a) some of these topics are precisely what they need to

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https://www.ftc.gov/sites/default/files/documents/public_events/joint-venture-hearings-antitrust-guidelines-collaboration-among-competitors/ftcdojguidelines-2.pdf, at p. 15-16 (last visited in June 2017).

[21] http://www.betterseed.org/about-asta/antitrust/ (The American Seed Trade Association).

[22] Id. See also: http://www.awea.org/events/antitrustguidelines (American Wind Energy Association); https://www.worldsteel.org/about-us/antitrust.html (World Steel Association); http://www.electran.org/about-eta/antitrust/ (Electronic Transactions Association).

discuss in order to evaluate the investment, and (b) the required procedures will further stultify an already somewhat stilted interaction. Once again, "the lawyers" will be seen as costly naysayers.

Because the antitrust risk is greatest in concentrated markets that are ripe for cartelization, counsel may want to limit its attention to communications involving firms in those markets. But doing so risks muddling the message among portfolio managers who do not understand antitrust. Striking the right balance is a hard problem that different firms will resolve in different ways. Institutional investors managing large index funds that centralize much of the engagement with portfolio firms[23] in proxy voting groups can train that group to avoid competitively sensitive topics. In actively managed mutual funds in which more of the engagement with portfolio companies is handled by individual portfolio managers, particular attention can be paid to sector funds (funds that invest in a specific industry) and to funds with investments in more than one firm in an industry. An institutional investor's antitrust risk is related to the extent to which a fund invests in competitors.

From the perspective of portfolio companies, the issue is somewhat different. All significant public companies are likely to already have antitrust guidelines that prohibit discussion of competitively sensitive issues with competitors.[24] The problem is that the lawyers who advise the investor relations group may not think of communications with investors as a potential channel for anticompetitive conduct. So, the key modification will be to expand the focus on communications with shareholders from securities law issues (e.g., insider trading; or Regulation FD) to consider the potential liability raised by our opening hypothetical. As with communications among competitors at trade association, the focus will be on avoiding discussion of competitively sensitive information, whether one-on-one or in earnings calls. This will take some reorientation, and will encounter resistance from investors, because that is precisely the information that investors are most interested in, as they consider whether to buy, hold or sell.

Part II. The "New Learning": An Antitrust Distraction?

While the increased concentration of shareholdings and the resulting increase in common ownership raises the possibility of *explicit* coordination in violation of Section 1, and thus poses a serious and underappreciated antitrust risk for institutional investors, a provocative line of new economics research by Azar, Schmalz and Tecu (2017) and related papers has shifted attention to quite different tacit coordination issues. This research claims to show theoretically and empirically that concentration of shareholdings in the hands of diversified investors has substantial anti-competitive effects in concentrated markets.[25] Taking these research results as valid, Einer Elhauge argues that such shareholdings violate Section 7 of the Clayton Act, even in the absence of any evidence of collusion.[26]

[23] "Portfolio companies" are firms held within a fund's portfolio.

[24] See, e.g., Ford Motor Company, Code of Conduct Handbook: Corporate Policies and Directives, at 52-55.

[25] Jose Azar, Martin C. Schmalz, and Isabel Tecu, "Anticompetitive Effects of Common Ownership," University of Michigan Stephen M. Ross School of Business, Working Paper No. 1235 (2015); José Azar, Sahil Raina & Martin C. Schmalz, Ultimate Ownership and Bank Competition (Jan. 8, 2016), http://ssrn.com/abstract=2710252 [https://perma.cc/UD9E-8H7M].

[26] Einer Elhauge, Horizontal Shareholding, 129 *Harv. L. Rev*. 1267 (2016).

Following on the Elhauge claim, Eric Posner, Fiona Scott Morton, and Glenn Weyl propose dramatic changes in enforcement policy and offer institutional investors a choice of safe harbors, either of which would prohibit their current business models.[27] We view these proposals as premature, given that the empirical analyses remain works in progress, but they are useful for raising antitrust awareness.

Because these papers have gotten substantial attention, and because they highlight some important aspects of the fundamental antitrust framework, we will spend some time on the arguments made, focusing in this section primarily on Azar et al.'s airline paper, in which the authors make both a theoretical and empirical argument that common holdings by diversified investors lead to anti-competitive outcomes. We address Elhauge's legal argument in Part III and Posner et al.'s policy proposals in Part IV.

A. The Theoretical Argument

At its core, the theoretical case for the adverse impact of common ownership is a version of television's CSI: Is there motive? Is there opportunity? In this context, the question is whether common ownership creates both an *incentive* to raise fares and an *ability* to do so. We consider each of these perspectives in turn.

1. The Incentive Argument: What will managers maximize if they manage for their actual shareholders?

To understand the Azar et al. incentive argument, start with a simple case. Imagine that Warren Buffett owned 51% of all four major airlines and used his controlling position to appoint the directors at each airline. From both the corporate law and antitrust perspectives, it would be clear that Buffett controlled all four airlines. From an antitrust perspective, we would expect two types of anti-competitive effects. First, as suggested by Azar et al., Buffett's common ownership position would change each firm's individual/unilateral pricing incentives because, say, Delta's managers would likely realize that attracting customers who would otherwise fly on United would not, by itself, benefit their boss, Mr. Buffett, because of his ownership interest in United. Second, it would make explicit collusive behavior far more likely because, with Buffett as the controlling shareholder of all the major airlines, coordination and enforcement of that coordination would become easier. As we will discuss below, an acquisition that put Buffet in this ownership position would surely violate Section 7 of the Clayton Act and might well violate both Section 1 and Section 2 of the Sherman Act. Because effective control of a publicly traded corporation with dispersed ownership rarely requires 51%, cross holdings at levels below 50% would also raise serious concerns.

That cross-ownership has the potential to change firms' unilateral pricing incentives and to encourage collusive behavior has been well known in the industrial organization and antitrust literature

[27] Eric A. Posner, Fiona Scott Morton, & E. Glen Weyl, "A Proposal to Limit the Anti-Competitive Power of Institutional Investors," (working paper, November 28, 2016), available at SSRN: https://ssrn.com/abstract=2872754 or http://dx.doi.org/10.2139/ssrn.2872754.

for some time.[28] With respect to unilateral behavior, the most prominent contribution is that of O'Brien and Salop.[29] With respect to collusive behavior, the best work is that of Gilo et al.[30] We focus on the former, since the Salop-O'Brien framework serves as the underpinning for the empirical analysis of Azar et al.[31]

O'Brien and Salop focused on the effects of a firm acquiring stock in a competitor. In this situation, they argued, a firm will take into account the effect of cutting prices (or other strategic competitive behavior) on the value of its shares in the competitor. Cross ownership has the effect of shifting the firm's objective from that of maximizing its own corporate profits to maximizing the weighted average of the partially owned and controlled profits of all of its horizontal competitors. To capture this effect on the unilateral incentives of a competitor, O'Brien and Salop expand the standard concentration – market power analysis that relies on the Herfindahl-Hirschman Index to a modified HHI (MHHI) framework in which a competitor's partial ownership of competitors enters the calculation. Using this framework, they point out that, in evaluating the likely competitive effect of share acquisitions, the increase in the MHHI (the MHHIΔ) is relevant to the analysis.[32] O'Brien and Salop do not assume or argue that the traditional concern with the increase in concentration resulting from mergers (the HHIΔ) and their newly developed MHHIΔ are commensurate.

Relying on the O'Brien and Salop model, Azar et al. make several potential contributions. First, they extend the use of the MHHI from the case of a firm owning stock in a competitor (cross ownership) to a (non-competitor) investor owning stock in competing firms (common ownership). Second, they hypothesize that (and subsequently try to test whether) an increase in the MHHI resulting from an increased concentration of shareholdings has the same relationship to potential anti-competitive price increases as do increases in the traditional HHI. Indeed, they are particularly impressed that "the incentives for anti-competitive behavior implied by current levels of common ownership, as measured

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[28] It is also well understood that common ownership can increase economic efficiency. As pointed out by Xavier Vives, "Institutional Investment, Common Ownership and Antitrust," *Antitrust Chronicle*, June 2017, pp 7-8, common ownership can improve information, firm collaboration (e.g., through airline joint ventures) and induce managers to reduce cost and/or improve performance. For some supporting evidence, see Jie He, Jiekun Huang, and Shan Zhao, "Internalizing Governance Externalities: The Role of Institutional Cross-Ownership," draft March 2017.

[29] Daniel P. O'Brien and Steven C. Salop, "Competitive Effects of Partial Ownership: Financial Interest and Corporate Control," 67 *Antitrust L. J.* 559 (2000).

[30] David Gilo, Yossi Moshe, and Yossi Spiegel, "Partial Cross Ownership and Tacit Collusion," 37 *Rand J. Econ* 81 (2006). See, also, David Gilo, The Anticompetitive Effect of Passive Investment, 99 *Mich. L. Rev*. 1 (2000).

[31] Azar et al. do suggest the possibility of a tacitly collusive outcome (at p. 4), pointing out that "the *omission* to explicitly demand or incentivize tougher competition between portfolio firms may allow managers to enjoy a 'quiet life'."

[32] The HHI, which is a sum of the squares of the market shares of firms in a relevant market, is the now standard measure of industry concentration. In reviewing mergers, enforcement authorities use the increase in concentration resulting from a merger, the HHIΔ, as an important rule of thumb for identifying mergers that pose prima facie competitive concern. *See,* U.S. Department of Justice, Federal Trade Commission, Horizontal Merger Guidelines, August 19, 2010, Section 5.3 (Market Concentration) and Section 13 (Partial Acquisitions). *See also*, Federal Trade Commission and the U.S. Department of Justice, "Antitrust Guidelines for Collaborations Among Competitors," April 2000 (especially Section 3.34, Factor Relevant to the Ability and Incentive of the Participants and the Collaboration to Compete). Neither of the Guidelines discusses the MHHI.

by the MHHI delta, are an order of magnitude larger than the implications for market power recognized by conventional measures that are measured on the same scale."[33]

The core of Azar et al.'s empirical analysis assumes that managers will take into account the holdings of shareholders in competing airlines. This is a heroic (and to us unconvincing) assumption for a variety of reasons. First, with respect to the airline industry, there is substantial heterogeneity among the holdings of the largest shareholders.[34] Thus, Table A.1 from Azar et al.'s online appendix shows the following:[35]

[33] Jose Azar, Martin C. Schmalz, and Isabel Tecu, "Anticompetitive Effects of Common Ownership," University of Michigan Stephen M. Ross School of Business, Working Paper No. 1235 (March 23, 2017), at 13, forthcoming in the Journal of Finance.

[34] These numbers taken from 13F and 13G SEC filings are the number of shares over which asset managers have investment authority. Because some beneficial owners retain voting control, these numbers are best understood to be an upper bound of the shares over which asset managers have voting control.

[35] See José Azar, Martin C. Schmalz & Isabel Tecu, Online Appendix to: Anti-Competitive Effects of Common Ownership 2 tbl.A.1 (Univ. of Mich. Stephen M. Ross Sch. of Bus., Working Paper No. 1235, 2015). Ownership of American Airlines is excluded because of American's November 2011 bankruptcy. Azar et al. at 24.

Table 1: Illustrative Cases of Within-industry Common Ownership Links (continued)

The data source is Capital IQ and reflects holdings as of 2016Q4.

Delta Air Lines	*[%]*	*Southwest Airlines Co.*	*[%]*	*American Airlines*	*[%]*
Berkshire Hathaway	8.25	PRIMECAP	11.78	T. Rowe Price	13.99
BlackRock	6.84	Berkshire Hathaway	7.02	PRIMECAP	8.97
Vanguard	6.31	Vanguard	6.21	Berkshire Hathaway	7.75
State Street Global Advisors	4.28	BlackRock	5.96	Vanguard	6.02
J.P. Morgan Asset Mgt.	3.79	Fidelity	5.53	BlackRock	5.82
Lansdowne Partners Limited	3.60	State Street Global Advisors	3.76	State Street Global Advisors	3.71
PRIMECAP	2.85	J.P. Morgan Asset Mgt.	1.31	Fidelity	3.30
AllianceBernstein L.P.	1.67	T. Rowe Price	1.26	Putnam	1.18
Fidelity	1.54	BNY Mellon Asset Mgt.	1.22	Morgan Stanley	1.17
PAR Capital Mgt.	1.52	Egerton Capital (UK) LLP	1.10	Northern Trust Global Inv	1.02
United Continental Holdings	*[%]*	*Alaska Air*	*[%]*	*JetBlue Airways*	*[%]*
Berkshire Hathaway	9.20	T. Rowe Price	10.14	Vanguard	7.96
BlackRock	7.11	Vanguard	9.73	Fidelity	7.58
Vanguard	6.88	BlackRock	5.60	BlackRock	7.33
PRIMECAP	6.27	PRIMECAP	4.95	PRIMECAP	5.91
PAR Capital Mgt.	5.18	PAR Capital Mgt.	3.65	Goldman Sachs Asset Mgt.	2.94
State Street Global Advisors	3.45	State Street Global Advisors	3.52	Dimensional Fund Advisors	2.42
J.P. Morgan Asset Mgt.	3.35	Franklin Resources	2.59	State Street Global Advisors	2.40
Altimeter Capital Mgt.	3.26	BNY Mellon Asset Mgt.	2.34	Wellington	2.07
T. Rowe Price	2.25	Citadel	1.98	Donald Smith Co.	1.80
AQR Capital Management	2.15	Renaissance Techn.	1.93	BarrowHanley	1.52
Spirit Airlines	*[%]*	*Allegiant Travel Company*	*[%]*	*Hawaiian*	*[%]*
Fidelity	10.70	Gallagher Jr., M. J. (Chairman, CEO)	20.30	BlackRock	11.20
Vanguard	7.41	BlackRock	8.61	Vanguard	10.97
Wellington	5.44	Renaissance Techn.	7.28	Aronson, Johnson, Ortiz, LP	5.99
Wasatch Advisors Inc.	4.33	Vanguard	6.65	Renaissance Techn.	4.67
BlackRock	3.77	Fidelity	5.25	Dimensional Fund Advisors	3.17
Jennison Associates	3.49	Franklin Resources	4.52	State Street Global Advisors	2.43
Wells Capital Mgt.	3.33	Wasatch Advisors Inc.	4.39	PanAgora Asset Mgt.	2.22
Franklin Resources	2.79	T. Rowe Price	4.23	LSV Asset Management	2.22
OppenheimerFunds.	2.67	TimesSquare Capital Mgt.	3.91	BNY Mellon Asset Mgt.	1.84
Capital Research and Mgt.	2.64	Neuberger Berman	3.07	Numeric Investors	1.79

Azar et al. and Posner et al. view these data as powerful evidence of the extent of common ownership by institutional investors. But is it? When we reformat the first six airlines as a spreadsheet, we see the following:

	Delta Air Lines	Southwest Airlines Co.	American Airlines	United Continental Holdings	Alaska Air	JetBlue Airways
AllianceBernstein L.P.	1.67	0	0	0	0	0
Altimeter Capital Mgt.	0	0	0	3.26	0	0
AQR Capital Management	0	0	0	2.15	0	0
BarrowHanley	0	0	0	0	0	1.52
Berkshire Hathaway	8.25	7.02	7.75	9.2	0	0
BlackRock	6.84	7.02	7.75	9.2	5.6	7.33
BNY Mellon Asset Mgt	0	1.22	0	0	2.34	0
Citadel	0	0	0	0	1.98	0
Dimensional Fund Advisors	0	0	0	0	0	2.42
Donald Smith Co.	0	0	0	0	0	1.8
Egerton Capital (UK) LLP	0	1.1	0	0	0	0
Fidelity	1.54	5.53	3.3	0	0	0
Franklin Resources	0	0	0	0	2.59	0
Goldman Sachs Asset Mgt.	0	0	0	0	0	2.94
J.P. Morgan Asset Mgt	3.79	1.31	0	3.35	0	0
Lansdowne Partners Limited	3.6	0	0	0	0	0
Morgan Stanley	0	0	1.17	0	0	0
Northern Trust Global Inv	0	0	1.02	0	0	0
PAR Capital Mgt	1.52	0	0	0	0	0
PRIMECAP	2.85	11.78	8.97	6.27	4.95	5.91
Putnam	0	0	1.18	0	0	0
Renaissance Techn.	0	0	0	0	1.93	0
State Street	4.28	3.76	3.71	3.45	3.52	2.4
T. Rowe Price	0	1.26	13.99	2.25	10.14	0
Vanguard	6.31	6.21	6.02	6.88	9.73	7.96
Wellington	0	0	0	0	0	2.07

The three gigantic institutional investors that dominate the market for passive (index) investing – Vanguard, BlackRock and State Street – are invested in all six of the airlines, as one would expect. But other investors – the "active managers" – have very different profiles. At the end of 2016, PRIMECAP had differentially weighted holdings of the airlines: 2.85% of Delta, 11.78% of Southwest, 8.97% of American, 6.27% of United, 4.95% of Alaska Air and 5.91% of JetBlue. T. Rowe Price, by contrast, held 13.99% of American and 10.14% of Alaska Air, smaller holdings of 1.26% of Southwest and 2.25% of United, and nothing in Delta and JetBlue. As all the "0"'s in the spreadsheet dramatically show, many investors do not hold all six airlines.

For each weighting of industry investments, an investor would be expected to have a different view of the right sort of competition within the industry. While firms that primarily manage index funds like Vanguard, BlackRock, and State Street might plausibly have an economic incentive to prefer "soft competition," an active manager like PRIMECAP might argue for low-cost carriers such as Southwest and JetBlue to undercut Delta and United if that would be in the unilateral interest of Southwest and JetBlue, respectively. T. Rowe Price, by contrast, would likely object were United Airlines management to take into account the effect of its strategy on Delta and JetBlue because it is only invested in United and Southwest.

Moreover, these holdings change quite dramatically over time. Thus, if one compares the top ten shareholdings in Southwest as of March 31, 2013 (as reported in Azar et al.'s March 3, 2015 online appendix at Table A.1) with the shareholdings in Southwest as of 2016Q4 (as reported in Azar et al.'s March 2017 draft), one sees the following:

2016Q4

Southwest Airlines Co.	*[%]*
PRIMECAP	11.78
Berkshire Hathaway	7.02
Vanguard	6.21
BlackRock	5.96
Fidelity	5.53
State Street Global Advisors	3.76
J.P. Morgan Asset Mgt.	1.31
T. Rowe Price	1.26
BNY Mellon Asset Mgt.	1.22
Egerton Capital (UK) LLP	1.10

2013Q1

(c) Southwest Airlines Co.

Primecap Management Company	11.2%
Vanguard Group, Inc.	6.2%
T. Rowe Price Associates, Inc.	5.3%
BlackRock Investment Mgmt, LLC	4.5%
Capital Research & Mgmt Co	4.3%
State Street Global Advisers	3.7%
Fidelity Management & Research	3.0%
Bankmont Financial Corp.	2.8%
Manning & Napier Advisors, Inc.	2.8%
Donald Smith & Co., Inc.	2.2%

While PRIMECAP was the largest shareholder at both times, Berkshire Hathaway acquired its 7% sometime between the two periods. T. Rowe Price, by contrast, reduced its holding from 5.3% to 1.26% while Fidelity increased its holding from 3% to 5.53%.[36]

The complications arising from the diversity of interests of the institutional investors increase by an order of magnitude when one realizes that index funds managed by BlackRock, Vanguard and State Street also own shares of the airlines' suppliers (e.g., Exxon, Boeing) and customers (e.g. GE, GM, and IBM). For an index fund that owns market-weighted positions in all companies in the index – in essence the whole economy – factoring in the effect of an airline's strategy on the fund's portfolio would be an extremely complex endeavor that would require determining the extent to which overcharging can or cannot be passed along to the ultimate consumers.[37]

While Azar et al.'s analysis focuses primarily on index funds, most institutional investors are not index funds and do not invest in all firms in a given industry.[38] But, it is instructive to note that even in the simpler, but unrealistic case in which all the shareholders are index funds with identical holdings, the implications for managerial strategy are unclear. Implicit in both Azar et al. and Posner et al. is the assumption that managers will seek to maximize the value of their investors' *portfolios*. But, as regards index funds, that mischaracterizes the nature of competition among funds. Because index funds strive to match a specific index, the potential maximum gross returns will be identical, namely, the performance of the index. Competition among index funds, therefore, is over the cost (the management fee), the accuracy of tracking the index, and customer service. Inducing "soft competition" will not help the typical index fund along any of these dimensions.[39]

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[36] Moreover, the data upon which these rankings of holdings are based – Form 13F filings and proxy statements – are problematic for two separate reasons. First, 13Fs are notoriously inaccurate. SEC Office of Investor General Review of the SEC's Section 13(f) Reporting Requirements (2010); Anderson & Brockman, Form 13F (Mis)Filings (2016) (proxy statements v. 13Fs). Second, they are incomplete insofar as they do not provide a comprehensive disclosure of "short" interest and derivatives. Third, they do not distinguish between the right to sell and the right to vote, a distinction critically important depending on the hypothesized channel of influence. When one looks closely at the disclosures, one finds, e.g., that at Southwest, the investment adviser, The Vanguard Group (the management company) has the power to sell the shares, while the individual fund managers have the power to vote the shares and vote them in the fund's individual interest for the benefit of the fund's investors. Moreover, as the reports of split votes on contested merger transactions like HP-Compaq and CVS-Caremark show, the voting decision is made at the *fund* level and in the interest of the fund (taking into account whether the fund is equally weighted in the merger partners or overweighted one way or the other), rather than at the family level. This is inconsistent with Azar et al.'s assumptions. Azar et al. (March 2017) at pp. 1-12, n.8.

[37] Posner et al. avoid this obvious objection only by relying on the strong assumption that any monopoly overcharge would be entirely passed on to the ultimate consumer. Posner et al. at X.

[38] As of year-end 2015, index funds collectively represented around $4 trillion in equity investments. Jan Fichtner, Elke M. Heemskerk and Javier Garcia-Bernardo, "Hidden power of the Big Three? Passive index funds, re-concentration of corporate ownership, and new financial risk," University of Amsterdam, Working Paper Feb. 7, 2017. This is about 16% of the total $25 trillion market cap for U.S. companies. http://data.worldbank.org/indicator/CM.MKT.LCAP.CD?view=map Index funds have grown, with the increasing popularity of the indexing business model, but still represent a relatively small percentage of the total market.

[39] In practice, there are no significant airline index funds that might potentially benefit from an increase in airline profits relative to, say, chemicals.

Accounting for non-index fund holdings greatly complicates the strategy calculus. But, it remains the case that confronted with the fundamentally heterogeneous, conflicting, and constantly changing preferences of shareholders (driven by heterogeneous and changing portfolios) with regard to whether and the extent to which the returns of other firms in the industry (and outside it) should count, the only strategy that will win support among the investors is to maximize the value of the single airline, without paying attention to the impact on the value of competitors.[40] Airline managers cannot plausibly optimize profits against the preferences of investors because those preferences are too diverse.

More generally, the value of the MHHIΔ as a tool of antitrust analysis of common ownership in concentrated industries such as the airline industry depends sensitively on the extent to which institutional investor ownership will change the incentives of the individual airlines. To illustrate, suppose hypothetically that the four major airlines have equal shares on a particular route. Suppose also that there are two major institutional investors and each has a 10 percent ownership share in all the airlines. The presence of these investors will create a positive MHHIΔ if, but only if, we assume that each airline will choose its output on the assumption that it will internalize 10 percent of the profits generated by each of the other airlines. To a first approximation, in that case the MHHIΔ will equal 125 in the O'Brien-Salop framework.[41] Each airline investor will, assuming some internalization of the ownership of the institutional investors, have an incentive to raise fares if operating in a "Cournot" framework in which firms choose profit-maximizing outputs. If, on the other hand, we assume that the institutional investors' stock holdings give them one-way control, the MHHIΔ would increase to 750.[42] By contrast, if the airline managers do not account for the effect of their strategy on institutional investors' other holdings, the MHHIΔ would be zero. The MHHI framework is thus extremely sensitive to the extent to which managers will take into account the effects on their shareholders other investments. Given the heterogeneity discussed above, we have serious doubts that airline managers would do this, unless an investor has a controlling position. [43]

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[40] This is a version of the basic assumption in finance research that a firm's objective is to maximize its own value and that firm and investor optimization are separable. Azar et al. (2017 draft at 38) recognize that they are challenging this core assumption of the finance literature: "Specifically, a ubiquitous assumption in finance research is that firms' objective is to maximize their own value, and that firm policies and investors' optimization problems are separable. Our results can be viewed as challenging this assumption." The pervasive assumption of separability is an informal application of the Fisher Separation Theorem, for which the conventional citation is Irving Fisher, *The Theory of Interest* (Macmillan 1930). For discussions of the application of the Separation Theorem to corporate law and finance through the channel of the objective of the firm, see Richard MacMinn, *The Fisher Model and Financial Markets*, 2005, chapter 4; Daniel Spulber, "Discovering the Role of the Firm: The Separation Criterion and Corporate Law," 6 *Berkeley Bus. L. J.* 298 (2009).

[41] 125 = .1 x 2 x 25 x 25. See Table 1 at p. 595, where β is .2 (10 percent interest x 2 companies) and the shares are 25% each.

[42] From Table 1, line 4 ("One-way Control), the MHHIΔ is equal to (1+.2) x 5 x 25 = 750.

[43] The use of the MHHIΔ in the context of a study of the airline industry raises additional concerns. First, there is substantial product differentiation in the industry. Indeed, prior studies of the industry have used (Bertrand) models in which airlines choose prices, not outputs. In our view, the Bertrand model is more appropriate for airline industry study than the Cournot model when analyzing pricing behavior. However, we appreciate the potential value of the Cournot model when one focuses on output (and capacity) issues. We note the argument that Cournot is appropriate when analyzing duopoly markets, given by James A. Brander and Anming Zhang,

While there are exceptional cases, in the most general O'Brien-Salop model, the MHHI will depend on ownership shares. But, these ownership shares may be endogenous, i.e., while ownership shares may affect airline prices, it is also likely that airline prices (and profits) will affect ownership shares. This creates a substantial inference problem for Azar et al. In applying the O'Brien and Salop model to the common (and non-controlling) ownership case, the authors fail to note a causal distinction between one investor holding 30% (arguably a controlling position and likely endogenous) and three investors each holding 10%. (less likely to be endogenous).[44] As we will discuss in greater detail below, control or a level of influence close to control are critical elements of the current legal framework and current enforcement policies.

To pursue the control point further, we reiterate that the model on which Azar et al. rely assumes implicitly that individual firms maximize the weighted average of the profits enjoyed by the shareholders of the firms, accounting for the shareholders' ownership of horizontal competitors. Is this plausible in the common ownership case? Does this more accurately represent the objectives of airlines than does the usual profit maximization assumption? Do individual airline managers actually account for the fact that institutional investors in their airline hold shares in competitor airlines? Given the heterogeneity of investors' holdings, how would they do this? More broadly, we need to ask to what extent do managers pursue objectives other than profit maximization of their own firm? And, if they do pursue profits, is their perspective short run or long run?

These concerns raise fundamental questions about the core theoretical move of the Azar et al. analysis: the extension of the O'Brien-Salop MHHI framework from cross-ownership to common ownership. The essential question here is how and to what extent common ownership makes a difference. In an oligopolistic industry such as the U.S. airline industry, there is no doubt that firms are keenly aware of their competitors' business strategies and actions. In such a world, one possible outcome is that each firm, acting in its unilateral self-interest, will find it advantageous to be less aggressive with respect to cutting price or increasing output than it might be if the market were less concentrated. But, it is hard to see how key pricing and output decisions would be affected in the

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"Market Conduct in the Airline Industry: An Empirical Investigation," 21 *Rand Journal of Economics*, 567 (1990). The authors do offer a robustness test that utilizes a measure of carrier-route common ownership (Table 4, Column 6), which they point out can be interpreted in a Bertrand framework.

We also note that results of the empirical analysis would change if the authors were to utilize the price-oriented "Price Pressure Index" ("PPI") of O'Brien and Salop, rather than MHHIΔ. Without an empirical study, we cannot ascertain the broad significance of this issue. We note, however, that use of the PPI would take into account the mix of individual ownerships and would also take into account a Bertrand framework in which profit margins and diversion ratios (accounting for different firm-level demand elasticities) would play an important role. Azar et al. do undertake some analysis in the Bertrand framework, but we do not find that analysis convincing.

[44] There is an inference problem because an analysis that focuses only on the effect of ownership shares on pricing and not the reverse causal relationship is likely to overstate the effect, if any, of ownership on pricing. This point is developed in Kennedy, Pauline, Daniel P. O'Brien, Minjae Song, and Keith Waehrer, "The Competitive Effects of Common Ownership: Economic Foundations and Empirical Evidence," (hereinafter, "Kennedy et al.") this issue. The core empirical analysis of airline pricing in Kennedy et al. utilizes a Bertrand framework. See also O'Brien, Daniel P. and Keith Waehrer, "The Competitive Effects of Common Ownership: We Know Less than We Think" (February 23, 2017). Available at SSRN: https://ssrn.com/abstract=2922677, Section II.B, for commentary related to these points.

presence of common ownership. Suppose hypothetically, that firms in the industry had, to some extent, chosen to set fares at a given level, through some form of tacit behavior. Why then, would we expect common ownership to encourage the firm and its competitors to move to a riskier higher airline fare outcome, and why would we expect this outcome to be a sustainable Nash equilibrium? In essence, it does not seem reasonable to us to sum the HHI and the MHHIΔ. While we cannot rule out such a possibility, especially if there were communications that supported a collusive outcome along the lines of our first hypothetical, we remain highly dubious of a non-explicit framework that suggests otherwise. We remain unaware of any evidence indicating that firm managers take into account their shareholders' other investments.

2. The "Ability" Argument

The second part of the Azar et al. theoretical case is based on the *ability* of shareholders to influence managers to soften competition so as to maximize investors' portfolio value. Assuming a homogeneous shareholder interest, how might shareholders exert this influence, especially when doing so will hurt an individual airline?

One possibility would be through shareholder voting on directors, on shareholder proposals, or perhaps on mergers. But, we see no evidence that shareholders vote on competitive strategy and no evidence that directors run on a "platform" that is directed toward~~s~~ a competitive strategy. In proxy statements, the information provided is limited to qualifications, expertise and other directorships, and director stock ownership and compensation.[45] In sum, there is no obvious way in which shareholders can vote for "soft competition."

A second possibility is that shareholder voting on management compensation pushes managers to soften competition. This, too, is unlikely given the limited role of shareholder voting in setting managerial compensation. Until 2011, companies were only required to seek shareholder approval for the high-level terms of their equity-based compensation plans and periodic approval of the terms of their annual incentive (i.e. bonus) plan. Since 2011, however, shareholders periodically (usually annually) have a non-binding "say on pay" vote covering all aspects of compensation for top executives. Overall, "say on pay" proposals are approved 92% of the time and there is little reason to think it provides a channel for any sort of fine tuning of executive compensation.[46]

A third possible mechanism is through lobbying. In this connection, return to our first hypothetical and the discussion in Part I. We agree that a portfolio manager could play an anticompetitive role in facilitating an airline cartel and that, if she did so, she and the airlines would all be in violation of Section 1 of the Sherman Act. Further, as we discuss in Part I, were portfolio managers at the large institutional investors to do so, there would be joint and several liability. Although we have not made an effort to study publicly available information with respect to earnings calls, we are

[45] See, e.g., Delta Proxy Statement (April 29, 2016) at pp. 15-21, 22, 60-63.

[46] Georgeson,"Annual Corporate Governance Review" 2016, at p. 10. But, see Miguel Anton, Florian Ederer, Mireai Gine, and Martin Schmalz, "Common Ownership, Competition, and Top Management," SSRN, draft July 1 (2016), concluding that managers are rewarded for their rivals' performance as well as their own.

unaware of any substantial evidence that institutional investors have, in fact, organized an airline cartel.[47]

A fourth possible mechanism would be through exit.[48] The problem with this channel is that the influence would be exerted by shareholders that can credibly threaten to exit – that is, active managers – and not investors who own shares because the company is part of the index that the fund tracks. Indeed, to the extent that exit is the channel of influence, managers might well ignore investors who have no choice but to hold.

B. The Empirical Argument

If Azar et al. were making only a theoretical argument for extending the MHHI framework to the common ownership context, the analysis would be limited to raising serious questions about the theoretical argument. But what has grabbed headlines is Azar et al.'s empirical claims, specifically, the claim that concentration of shareholdings in the hands of diversified institutional investors has increased the price of airline tickets by as much as 10%. If this claim is valid, it raises serious questions about the competitive effects of increased concentration of shareholdings as well as validating the use of the MHHI framework in antitrust analysis. We are unconvinced. In this section, we review the empirical case.

1. Doubts about Causality and the "Instrumental Variable" Analysis

The Azar et al. paper involves a detailed empirical analysis of the relationship between airline concentration and airline fares. Utilizing publicly available data on individual airline ticket prices for individual airport to airport routes over the period 2001Q1 to 2014Q4, the authors analyze the relationship between airline fares and both airline concentration and institutional ownership concentration.[49] To be specific, the basic (route-level) regression model takes the following form (route and carrier subscripts are omitted):

$$\log (p_t) = \beta \text{ MHHI}\Delta_t + \gamma \text{ HHI}_t + \theta X_t + \varepsilon_t$$

[47] The DOJ has apparently closed its investigation without bringing any charges against airlines. See "Justice Department Said to be Dropping Airline Collusion Case," Investopedia, Jan 13, 2017, "Source: Obama DOJ won't push antitrust case against airlines," *Albuquerque Journal*, Jan 16, 2017. There is a private class action pending that alleges that the airlines colluded to constrain capacity. In re Domestic Airline Travel Antitrust Litigation, 221 F. Supp. 3d 46 (D.D.C. 2016).

[48] For an overview, see Edmans, Alex, Blockholders and Corporate Governance (December 2014). *Annual Review of Financial Economics*, Vol. 6, pp. 23-50, 2014. Available at SSRN: https://ssrn.com/abstract=2530472 or http://dx.doi.org/10.1146/annurev-financial-110613-034455.

[49] The DB1B database has been utilized by the Antitrust Division of the Department of Justice and private parties to evaluate airline mergers. For one example of the use of the database, see Bryan Keating, Mark Israel, Daniel L. Rubinfeld, and Robert Willig, "Airline Network Effects and Consumer Welfare," *Review of Network Economics*, Nov. (2013), 1-36.

where HHI is the Herfindahl-Hirschman Index, MHHIΔ is the increase in the HHI reflecting institutional ownership (as suggested by O'Brien and Salop), and X is a vector of exogenous control variables as well as time and market-times-carrier fixed effects.

As Kennedy et al. point out, while there is arguably a theoretical underpinning to a "reduced form" equation of this type that includes an HHI variable, there is no foundation that supports the inclusion of the MHHIΔ variable. Indeed, the authors offer a convincing argument that an appropriate specification would account for the fact that the effect of the MHHIΔ on airline pricing will depend on the ownership shares of the individual airlines. One can imagine, for example, that the impact of the MHHIΔ will depend on the mix of legacy and low-cost carriers in the portfolio. For example, if the portfolio includes only legacy carriers, the institutional investor is likely to oppose an increase in the number of slots at a slot-constrained airport, whereas an investor with a portfolio that included several low cost carriers would have the opposite view, holding MHHIΔ constant. Because the effect of MHHIΔ can plausibly point in opposite directions depending on the individual airlines held, it would be useful, in getting a sense of the magnitude of this potential concern, to include interaction variables in the model that accounted for the effects of the common ownership variables. We note, however, that Kennedy et al. do not offer a fully specified reduced form model; rather they choose to interpret their empirical analysis as offering robustness tests of the Azar et al. paper.

Since concentration is expected to have a positive effect on airline fares, the inclusion of the HHI variable is appropriate in this "reduced-form" equation. What is at issue, however, is the addition of the modified HHI variable MHHIΔ. The inclusion of MHHIΔ in the airline fare regression generates interesting correlations, while raising provocative questions. The authors suggest that the MHHIΔ measures the likely incremental impact of cross-ownership in a Cournot model of oligopolistic competition. The authors claim further that taking into account common ownership changes the airlines' anticompetitive incentives by orders of magnitude.

We have several substantial concerns with the Azar et al. framework. First, we note that Azar et al. do not deal formally with the possible endogeneity of the HHI variable.[50] This is potentially important limitation of their analysis, given that the HHI measure is as likely to be endogenous as is the MHHIΔ variable.[51] Indeed, creating an "instrument" that is chosen to deal with the HHI endogeneity, Kennedy et al. find that there are no fare effects relating to institutional investor holdings.[52] Also of note, in an analysis of the banking industry and using SEC 13F data on shareholdings of institutional investors, Gramlich and Grundl avoid the endogeneity issue and find little or no competitive effects of common ownership on prices and on quantities.[53]

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[50] The authors do note and comment on this issue and they offer various tests of reverse causality, but they do not offer an instrumental variables treatment.

[51] The Azar et al. regression is estimated using one instrument to deal with the endogeneity of the MHHΔ variable. To treat the endogeneity of the HHI variable the authors would need to posit a second instrument.

[52] We are aware (as their article points out) that the authors' paper was funded by the institutional investor industry.

[53] Jacob Gramlich and Serafin Grundl, "Estimating the Competitive Effects of Common Ownership," draft, April 21, 2017. The authors do note that the 13F data are known for containing inconsistencies (which, of course, is equally a problem for Azar et al.). We note in passing that we do not find convincing Professor Elhauge's claim that the

Second, in response to the concern about the endogeneity of the MHHIΔ variable in their airline study, the authors point out that the 2009 acquisition of Barclays Global Investors, a very large "index" investor, by BlackRock, a very large active manager, has the potential to serve as an "instrument" that will, through instrumental variables estimation ("IV"), allow the authors to deal with endogeneity (or "reverse causality") concerns. The suggestion here is that the merger of BlackRock and BGI – which changed ownership concentration in the major airlines from each holding around perhaps 3% to the combined firm holding around 6% -- was a change of sufficient magnitude to affect ticket prices through encouraging managers to better take into account their investors' holdings in competing airlines. For the reasons given above, we find this implausible theoretically.

We also find the power of the variable that accounts for the merger of BlackRock and BGI, which differentially changed the MHHI in airline markets, to be empirically implausible. An "instrumental variable" analysis takes a change in a variable that is correlated with, but not causally related to the variable of interest (in this case airline fares) and uses it to simulate a natural experiment. The airline industry is an interesting laboratory here because there are numerous markets (Azar et al. use "airport pairs" as relevant markets) and the change in MHHI resulting from the BlackRock/BGI merger will be different in the different airline markets because markets are served by different combinations of airlines. The basic idea is to view the merger as a "treatment" that is applied to different markets to different extents, and then observe the resulting effects (do ticket prices go up more in the markets in which the MHHIΔ is larger?). Unfortunately, the BlackRock/BGI instrument reflects a natural experiment at a single moment in time in which the increase in the Blackrock share increased modestly. As a consequence, it is unlikely to provide an instrument that has the power to account for the time-series component of the MHHI delta.[54]

In essence, we are suggesting that, without a theory/model for how this one time change (that continues forward) will change the choice of strategy at the firm level, we cannot evaluate what the empirical results mean. The problem is that Azar et al offer at least two competing models for how increases in the MHHI plausibly affect strategy: (1) through the compensation channel,-and (2) by displacing or discouraging activist hedge funds from pursuing aggressive firm-specific interventions. The effect of an increased-MHHI will be different depending on the operative model. For instance, the compensation channel could plausibly be triggered by a single large shareholder making its views known, while the second channel requires multiple common owners to vote against (or to indicate a willingness to vote against) an aggressively competitive strategy. Without greater specificity regarding the underlying mechanism, it is unclear how the instrument – a one-time increase in holdings by BlackRock – can account for the changes over time found by Azar et al.'s empirical analysis.

Our third concern relates to the timing of a key instrumental variable in the Azar et al. analysis. As the authors are aware, the 2009 timing of the BlackRock-BGI acquisition was one year later than a

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article is not compelling because it uses ownership levels rather than shares. Subject to confirmation by Gramlich and Grundl, it seems unlikely that their results would differ substantially if they were to measure holdings in terms of shares rather than levels.

[54] As emphasized by Elhauge ("The Growing Problem of Institutional Shareholding," *Antitrust Chronicle*, June 2017, pp. 1-8), Azar et al. also find a negative correlation between the MHHIΔ and output (see their Table C4). While relevant, this evidence does not necessarily support a causal inference, given that the endogeneity concerns are not fully resolved.

significant change in the airline industry -- Delta's acquisition of Northwest airlines.[55] Moreover, the year 2009 was a year in which the adverse effects of the great recession were diminishing. Indeed, airline fuel costs were falling and airline profit margins and overall profits were generally increasing.[56] Then, in 2010, only one year later, United acquired Continental – marking an additional improvement in airline networks (although United has endured a more difficult transition towards generating its predicted network benefits than did Delta). These contemporaneous airline mergers (as well as the later mergers between Southwest and Airtran and between American Airlines and US Airways) provide two alternative hypotheses that would provide more "traditional" explanations for the observed effects on prices. First, it could be that the airline mergers increased product quality so that quality-adjusted prices stayed constant or decreased. Second, it could be that quality-adjusted prices increased but that the increase was due to the increased concentration in airlines (as opposed to increased concentration in the shareholding of airlines).[57] We find unconvincing Azar et al.'s evidence suggesting that increased tickets prices were due to the BlackRock/BGI merger rather than these alternative, highly plausible, explanations.[58]

Finally, we note that through the entire period of analysis, Southwest was the LCC that exerted the greatest downward pressure on airline fares. However, that pressure diminished somewhat over time as Southwest's costs increased and Southwest began to invest more heavily in developing its mini-hubs. Moreover, Southwest's acquisition of AirTran removed another LCC from the marketplace. Isn't it likely that these industry changes, including substantial consolidation, are more responsible for any increase in air fares on major airline routes than the increase in ownership shares created by the BlackRock – BGI acquisition?[59] Isn't it also possible that, using the latest optimization techniques, the airlines have improved their ability to find profit-maximizing strategies? Indeed, with consolidation and improved yield management and related software, it might make economic sense for institutional

[55] *See,* Mark Israel, Bryan Keating, Daniel L. Rubinfeld, and Robert D. Willig, "The Delta-Northwest Merger: Consumer Benefits from Airline Network Effects, Chapter 18, in *The Antitrust Revolution* (John E. Kwoka, Jr. and Lawrence J. White, eds.), Oxford University Press (2015).

[56] *See*, Robert S. Pindyck and Daniel L. Rubinfeld, *Microeconomics*: 9th Edition, Example 9.3 (Airline Regulation), (2017).

[57] The HHI variable in Azar et al.'s regression could potentially capture such an effect if – contrary to our conclusion – the model were otherwise correctly specified.

[58] Also in response to the endogeneity concerns the authors offer a series of regressions with leads and lags of the MHHIΔ and HHI variables, finding that lags of MHHIΔ are correlated with prices and leads are not. They point out (p. 18) that these results reduce the likelihood of reverse causality. We agree that, other things equal, these Granger causality tests can be informative. However, we do not find them compelling in this context because the tests do not account for alternative causal pricing explanations such as those put forward in this paper. See, for example, James D. Hamilton, Time Series Analysis, Princeton: Princeton University Press, 1994, Chapter 11. See also, Anil Seth, "Granger Causality," Scholarpedia, 2(7): 1667 (2007), "A general comment about all implementations of G[ranger] causality is that they depend entirely on the appropriate selection of variables. Obviously, causal factors that are not incorporated into the regression model cannot be represented in the output." (bracketed material added).

[59] We have a number of other quibbles that may or may not have empirical import. First, code-share revenues are allocated primarily to the operating airline, not the marketing airline. Second, the MHHI calculation is based on margins, not fares, with the implication that changes in cost over time can help to explain the Azar et al. regression results.

investors to increase their airline holdings. Our doubts about the underlying causality issues just discussed are mirrored in the Kennedy et al. paper in this volume and by a prior a commentary by O'Brien and Waehrer.[60] While we recognize the potential for a pro-investor perspective on the part of the authors of both articles,[61] we nevertheless agree with the authors that

> Factors other than common ownership affect both price and the MHHI, so the relationship between price and the MHHI need not reflect the relationship between price and common ownership. Thus, regressions of price on the MHHI are likely to show a relationship even if common ownership has no actual causal effect on price. The instrumental variable approaches employed in this literature are not sufficient to remedy this issue.[62]

2. Doubts about Robustness

We have a number of empirical concerns that relate to the question of whether the Azar et al. results are robust to changes in the units of observation or changes in the model specification. In the current version of their paper the authors should be commended for including a wide range of robustness checks, but as with any empirical paper of this sort questions remain. A continued investigation of these concerns is worthwhile given that this airline study and a related banking study have the potential to drive both law and policy. There is more work to be done. Whether our robustness concerns have empirical import will depend on further analyses by the authors or by other commentators.

Our first concern relates to market definition. In our view, relevant markets are typically determined by city pairs (with the appropriate airports to be included within the city definition to be determined on a city-by-city basis), not airport pairs. As a consequence, the authors' basic analysis utilizes the wrong micro units. Using airport pairs as relevant markets seems likely in many cases lead to markets with substantially higher HHIs and MHHIs than would be the norm if markets were defined by city pairs. To illustrate, United is the dominant carrier on the SFO-EWR (San Francisco to Newark) route. But, United faces substantial competition from Jet Blue, Southwest, American, Delta, and Virgin Atlantic on other airport pairs that are in the same relevant market (SFO-JFK, OAK-JFK, etc.).[63] The authors report (Table 4) that a regression based on city pairs if anything strengthens the analysis, which suggests that this concern is likely to be a minor one.[64]

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[60] O'Brien, Daniel P. and Waehrer, Keith, The Competitive Effects of Common Ownership: We Know Less than We Think (February 23, 2017). Available at SSRN: https://ssrn.com/abstract=2922677

[61] O'Brien and Waehrer disclose that their research was funded in part by the Investment Company Institute.

[62] *Id.*

[63] In litigation surrounding the United Airlines acquisition of Continental Airlines, the Court agreed with one of us (Rubinfeld) that the relevant market included OAK and SFO on the San Francisco end and JFK, LGA, and EWR on the New York end.

[64] Not all airports in each major city need be in the same relevant market; the decision as to which city airports to include is a difficult one. For example, in *Malaney, et al. v. UAL Corp*. (No. C 10-02858 RS (N.D. Cal. Dec. 29, 2011) the defense expert Professor Rubinfeld testified that the relevant San Francisco market included OAK and SFO, but not SJC (San Jose). Azar et al. do not report how they defined "city pairs" in their robustness tests.

Our second robustness concern relates to the impact of low-cost and ultra-low-cost carriers. We suspect that the MHHIΔ may be serving as a proxy for other route-level characteristics, such as low-cost carrier ("LCC") share. We would expect the MHHIΔ to be lower on routes with LCC presence and pressure for the major airlines to cut prices; if so, the model should be estimated with a complete set of LCC interactions. The authors have also included an indicator variable that reflects whether an LCC operates on a route, but this incomplete accounting for the nature of competition on individual airline routes does not fully resolve our concern.[65] Moreover, the model is estimated using as weights the average number of passengers for market carriers. This suggests that the results are driven substantially or primarily by the larger routes, especially those that are associated with relevant markets that are concentrated. We are curious as to whether the results would hold up if the model were estimated only for the larger routes.[66] The authors offer a partial test of this issue by interacting variable levels of concentration (the HHI) with the MHHIΔ variable, finding a pattern of increasing and mostly statistically significant results (see Figure C.6). A plausible alternative explanation for the empirical findings of Azar et al. is that the major airlines have higher margins on those routes, due to greater market power, increased efficiencies, or a combination of both.

3. **Doubts about the Channel of Influence**

In suggesting possible channels of influence, Azar and his colleagues as well as Posner and his colleagues rely on a paper by Anton, Ederer, Gina and Schmalz for the proposition that compensation structures that align the interests of managers with the interests of diversified investors provide a plausible channel of influence. In particular, Anton et al. argue that the differential use of a Relative Performance Evaluation ("RPE") approach to compensation offers the means by which firms account for the interdependence of competitor behavior, especially in oligopolistic industries.[67] Specifically, the authors suggest that RPE is less likely to be utilized or if used will be less robust in industries with high cross ownership and they offer a model in which RPE is optimally utilized when each firm is owned by a different investor or each firm's strategic decision does not influence its competitors. According to the authors, when "the most powerful shareholders of a firm also own large stakes in the firm's competitors, shareholders do not want to incentivize managers to compete aggressively . . . Instead,

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[65] Kennedy et al. include a second (HHI driven) instrument in their regression analysis – the number of airlines in each "market" included in the Russell 1000 index. We agree that participation in the index can be expected to be correlated with common ownership, but we are less confident that the instrument will be uncorrelated with the unobserved component of airline prices across markets and time.

[66] See John Woodbury, "Commentary," *Antitrust Source*, December 2014, for these and other thoughtful comments.

[67] Miguel Anton, Florian Ederer, Mireia Gina, and Martin Schmalz, "Common Ownership, Competition, and Top Management Incentives," Cowles Foundation Discussion Paper No. 2046 (July 2016). In the their banking paper (J. Azar, S. Raina, and M. Schmalz, "Ultimate Ownership and Bank Competition," University of Michigan working paper, 2016), the authors write, "Lastly, Anton et al. (2016) show that managers' incentives are at least partially aligned with their shareholders anticompetitive interests: top executives get paid less for the own firm's performance and more for rival performance when the industry is more commonly owned."

they choose to reward top managers more for industry profits, irrespective of where the profits come from . . . "[68]

A working paper that examines the same question, but from a somewhat different perspective, comes out with diametrically opposed results.[69] Using the same Execucomp database but with different empirical specifications, Kwon (2017) finds that higher common ownership of natural competitors is associated with *greater* use of relative performance evaluation. Two papers with such diametrically opposed results raise questions about the robustness of either analysis.

To understand this debate, we need to take a step back. In aligning the interests of managers and shareholders, tying compensation to stock price is problematic because it rewards or punishes managers for broad, market-wide price movements that have nothing to do with how effectively the CEO managed the firm. From a principal-agent perspective, what undiversified shareholders really care about is the extent to which their CEO outperforms other CEOs.[70] A compensation structure that implements this approach is known as "Relative Performance Evaluation" or RPE.

Anton et al. note a potential downside to RPE: it incentivizes managers to compete with other firms in an industry even if, given market structure, "soft" competition is preferred. Anton et al. ask whether RPE is used less at firms in markets with a high MHHI than at firms in markets with a lower MHHI? In a cross-industry study, Anton et al. find a correlation between MHHI and the use of RPE.

Methodologically, evaluating the impact, if any, of the use of RPE is very difficult. First, RPE is not readily observable because we do not know the extent to which compensation committees, in granting discretionary raises, reward relative or absolute performance. Second, RPE has become very popular so that many firms use some form of RPE. Third, there can be substantial differences between expected compensation and realized compensation and it is unclear which will have the greatest effect on incentives. Finally, compensation data, especially over time, has not been reported in a standardized format, and the data provided by commercial services is error filled.

For Azar et al., the airline industry is the test case for the anticompetitive effects of common ownership. As a result, they should predict low levels of RPE at major airlines. Yet a quick look suggests otherwise. Taking the 2015 proxy statements as a useful snapshot, we find that, at American:

> In April 2015, Mr. Parker requested and the Compensation Committee agreed to provide 100% of his direct compensation in the form of equity incentives, underscoring our commitment to paying for performance and further aligning his interests with that of our stockholders. Mr. Parker will no longer receive any base salary and will no longer participate in the Company's 2015 Short-term Incentive Program. In addition, the majority of Mr. Parker's 2015 target equity compensation is performance-based and will be earned, if at all, not earlier than the third anniversary of the grant date *based on our relative three-year pre-tax income margin as*

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[68] Anton et al. at p. 4.

[69] Heung Jin Kwon, Executive Compensation under Common Ownership (1/30/2017 working paper).

[70] For a thoughtful theoretical discussion of the import of relative performance, *see* Bengt Holmstrom, "Moral Hazard in Teams," 13 *Bell Journal of Economics*, Autumn 324 (1982), section 4.

compared to that of a pre-defined group of airlines. We believe relative pre-tax income margin is the most effective measure of our relative financial performance in the airline industry . . . Mr. Parker's 2015 total target direct compensation continues to remain at a level significantly below his peers at Delta and United (using 2013 proxy compensation data reported in 2014 for Delta and United).[71]

Delta followed a similar approach (albeit somewhat less extreme): "The structure of Delta's executive compensation program therefore aligns with the goal of creating long-term value for Delta's stockholders. This structure ties the ultimate value of long-term awards to the achievement of key measures of the success of the business, including return on invested capital, average annual operating margin *relative to airline peers and customer service performance*, as well as stock price performance and continued employment with Delta."[72]

Although inconsistent with the predictions of the Azar et al. approach, the fact that RPE is often used in the airline industry is unsurprising from a corporate governance perspective. Shareholders have long pushed for RPE. Vanguard, for example, expresses the following view on executive compensation:

Pay for performance

Compensation should incent and reward the creation of value for the company's stakeholders. As such, we believe that a substantial portion of executive compensation should be tied to relevant financial and/or operational outcomes that (a) reflect the decisions and effort of those being compensated, and (b) contribute to the creation of value over the long term. Accordingly, incentives should be structured to reward relative outperformance, as opposed to a general rise in stock prices or other market-wide trends, over the course of a business or product cycle that is relevant to the company. (In the event that a company's financial results are subsequently restated, excess awards to individuals should be reclaimed by the company.) While compensation should ultimately reward long-term performance, incentives for shorter term (i.e., annual) performance objectives may be appropriate to the extent that the incentives support sustainable value creation.[73]

In response to institutional investor responses to a 2011 survey, Institutional Shareholder Services ("ISS") now incorporates relative performance evaluation into its assessment of pay-for-performance alignment, and strongly recommends the use of RPE. Importantly, neither Vanguard not ISS recommends or allows for differences in compensation approach for firms in concentrated markets.[74] Because a substantial percentage of medium sized and smaller institutional investors follow

[71] American April 22, 2015 proxy at 38 (emphasis added). American's April 29, 2016 proxy continues this approach ("The performance-vesting RSUs vest no earlier than April 2018 and are earned subject to the Company's achievement of pre-tax income margin, excluding special charges, over a three-year period from January 1, 2015 to December 31, 2017 relative to the weighted average of a peer group comprised of Delta, United, Southwest, JetBlue, Alaska, Spirit and Virgin America." at 60).
[72] Delta 2015 proxy at 75 (emphasis added). See also, United 2015 proxy at 42, Southwest 2015 proxy.
[73] https://about.vanguard.com/vanguard-proxy-voting/corporate-governance/index.html
[74] ISS 2014 FAQ at 6.

ISS recommendations, so do compensation committees.[75] The important role of ISS guidelines in the design of executive compensation thus raises additional issues for the use of RPE (or lack of RPE) as the channel of influence. In a world in which a substantial percentage of shareholders follow ISS recommendations, the fact that those guidelines do not distinguish among firms based on MHHI makes it unlikely that there will be significant variation in the use or intensity of RPE based on MHHI.

In the most recent draft of their Article, Azar et al. propose a *different* channel of influence. Perhaps, they suggest, the presence of large diversified institutional investors with a preference for "soft competition" crowds out more activist shareholders who would be focused on maximizing individual firm value, even if doing so did not maximize industry value.[76] If taken literally, this is a puzzling suggestion: index funds collectively holding only around 16% of the stock of a typical airline will hardly prevent activist hedge funds from acquiring large (e.g., 9%) positions. Indeed, as discussed earlier, Warren Buffett acquired substantial positions over a short period of time.

Read charitably, the idea may be that the presence of such common owners with a preference for soft competition (even a "passive" preference) would make it harder for an activist to effect change at the firm and would thus discourage them from investing. This, too, strikes us as implausible. First, as has been extensively documented, activist hedge funds have been extremely effective in taking large positions and convincing institutional shareholders of the merits of their plans.[77] Although there have been dozens of activist hedge fund engagements, we are not aware of any in which the fight was over whether target management engaged in *excessive* competition. More typically, hedge funds provide the proverbial "kick in the pants."

Second, Azar et al. assume that managers listen to (or anticipate the desires of) their largest shareholders and not that their largest shareholders are successful in convincing smaller shareholder to support them (and thus they ignore smaller holders in their analysis). In this model, one would expect that any sacrifices that a given airline would make in profits out of deference to widely diversified shareholders would be arbitraged away *unless* the diversified shareholder exercised some significant degree of control. To see this, assume that at Airline X, managers sacrifice firm profits (engage in "soft competition") because they manage for the benefit of their two largest shareholders, BlackRock and Vanguard, each of whom holds 7% in all the major public airlines. In Azar et al.'s framework, this creates an opportunity for an activist engagement: active hedge funds or mutual funds could buy large positions (>7%) at a lower price that reflects the lost profits from foregoing hard competition, and, having become the two largest shareholders, shift the firm to a more aggressive strategy. They would then sell out at the higher stock price that reflects those additional profits.

More generally, this example shows the limits of Azar et al.'s unilateral effects framework in the less than controlling "common ownership" scenario. Without control, any sacrifice of firm profits out of

[75] Georgeson, *supra,* at 10 (95% approval of say on pay resolution when ISS recommends in favor; 68% approval when ISS recommends against.)
[76] Azar et al., March draft at 5, 32.
[77] Kahan & Rock, Hedge Funds in Corporate Governance and Corporate Control, 155 U. Pa. L. Rev. 1021 (2007); Kahan & Rock, Anti-Activist Poison Pills, working paper (2017).

deference to a shareholder's other holdings will provide a profitable investment opportunity for a shareholder that thinks it can shift the strategy back towards maximizing single firm value. This provides one explanation for why control is so critical to the original O'Brien and Salop analysis and why control plays such a central role in enforcement policy.

Part III. The Antitrust Analysis of Cross and Common Ownership

In Part I, we discussed the extent to which Section 1 of the Sherman Act applies to investors that facilitate portfolio company cartels and showed that there is substantial antitrust risk. In Part II, we considered the provocative claims by Azar et al. that common ownership at levels well below 10%, even without any direct evidence of culpable participation in collusion, may nonetheless be anticompetitive. In this-Part, we consider the antitrust analysis of potentially anticompetitive acquisitions of stock under Section 7 of the Clayton Act. As we will show, existing doctrine primarily focuses on stock acquisitions that provide control or substantial influence, and has never even suggested that stock ownership at the level of BlackRock, Vanguard or State Street raises any significant Clayton Section 7 concerns.

A. The Statutory Framework

Section 7 of the Clayton Act, in relevant part, provides that:

> No person shall acquire, directly or indirectly, the whole or any part of the stock or other share capital and no person subject to the jurisdiction of the Federal Trade Commission shall acquire the whole or any part of the assets of one or more persons engaged in commerce or in any activity affecting commerce, where in any line of commerce or in any activity affecting commerce in any section of the country, the effect of such acquisition, of such stocks or assets, or of the use of such stock by the voting or granting of proxies or otherwise, may be substantially to lessen competition, or to tend to create a monopoly.

At the same time, the "solely for investment exemption" provides that:

> This section shall not apply to persons purchasing such stock solely for investment and not using the same by voting or otherwise to bring about, or in attempting to bring about, the substantial lessening of competition.

The antitrust analysis of common or cross ownership is carried out within this framework.

B. The Relevant Case Law

Although the language of ~~the~~ Section 7, and the leading Supreme Court case interpreting it,[78] both emphasize the extent to which it is designed to arrest anticompetitive conduct in its "incipiency" – "where . . . the effect of such acquisition of . . . stock or the use of such stock . . . may be substantially to

[78] *U.S. v. Philadelphia National Bank*, 374 U.S. 321 (1963). Common ownership was an issue in *U.S. v. Citizens & Southern National Bank*, 422 U.S. 86 (1975), but in a very unusual factual context that provides no insight into the treatment of common ownership more generally.

lessen competition or to tend to create a monopoly" – the statutory language only gains meaning in its application. In this section, we review the sparse case law and the enforcement history.[79]

The only U.S. Supreme Court case squarely to address cross ownership of stock is *U.S. v. E.I. du Pont de Nemours & Co.* from 1957. The story of Du Pont's involvement with General Motors is a famous and important chapter in the history of corporate governance.[80] In 1917, Pierre du Pont led Du Pont to invest $25 million of its profits from World War I into GM stock. When, during the post war recession, GM (and, more to the point, its founder and CEO William C. Durant) ran into financial trouble, the Du Pont Company and J.P. Morgan and Company assumed Durant's debts and the stock he controlled. Pierre du Pont famously moved to New York to become president and, working with Alfred P. Sloan, Jr., reorganized GM and essentially invented the modern, multi-division managerial corporation. Although Pierre du Pont stepped down from the GM presidency in 1923, from the chairmanship in 1928 and from the board in 1940, the Du Pont company continued to hold shares in GM.

Fast forward to the late 1940s. By this point, GM and Du Pont were both among the largest corporations in the world. In 1946, the DOJ began to investigate breaking up GM.[81] In 1948, as part of this investigation, the U.S. brought suit to force a separation of Du Pont and GM and the divestiture by Du Pont of its 23% stock interest in GM. According to the head of the Antitrust Division of the Department of Justice, the main problem was the "concentration of economic power in industries controlled by a few large companies."[82]

The government used Clayton Act Section 7 against Du Pont, arguing that by means of the cross holdings, Du Pont had obtained an illegal advantage in the supply of fabrics and finishes to GM, with "the resultant likelihood, at the time of suit, of the creation of a monopoly of a line of commerce." The case thus, on its face, involved a vertical restraint.

It is in this context that the Supreme Court described Section 7 as "designed to arrest in its incipiency not only the substantial lessening of competition from the acquisition by one corporation of the whole or any part of the stock of a competing corporation, but also to arrest in their incipiency restraints or monopolies in a relevant market which, as a reasonable probability, appear at the time of suit likely to result from the acquisition by one corporation of all or any part of the stock of any other corporation."[83]

As a vertical restraint case, it is extremely weak by modern standards. As GM argued at the time, the total GM use of fabrics and finishes was a negligible percentage of any relevant market (3.5% of finishes used for automobiles; 1.6% of fabrics used for automobiles). Even on the court's account, the anti-competitive effect was far from obvious, with the concern being that Du Pont supplied around 67% of GM's requirements for finishes and around 50% of the requirements for fabrics. The court made

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[79] For comprehensive discussions, see 1-3 Antitrust Law Developments 3A and 3B.
[80] For a comprehensive account, see Alfred D. Chandler, Jr., Pierre S. Du Pont and the Making of the Modern Corporation (1971) at Part IV (pp. 433-604).
[81] Mark Roe, "The Modern Corporation and Private Pensions," 41 *UCLA L Rev* 75 (1993) at 131.
[82] Roe, *supra*, at 131 n. 16.
[83] DuPont, 353 U.S. at 588-90.

much of the fact that Du Pont used its stock ownership and relationship to encourage GM to buy its fabrics and finishes. Whatever pressure Du Pont exerted, by the time of the government's lawsuit, it was unlikely that the purpose of the stock ownership was to push finishes and fabrics: in 1947, Du Pont's stock in GM was worth around $2 billion while it only sold about $22 million per year in product.[84]

Given how questionable the theory of anti-competitive harm was, even at the time,[85] the case is best understood as a "bigness is badness" case from a period of antitrust enforcement in which that was a compelling argument. Most would agree that, were an equivalent case brought today (imagine, for example, that Microsoft owned 23% of GM and used that stock ownership to get GM to buy Microsoft Office), it would come out the other way. The case's current vitality is as a citation for the proposition that Section 7's goal is to supplement the Sherman Act and "arrest the creation of trusts or monopolies in their incipiency."[86] That said, it has not been cited by the Supreme Court, even for that proposition, since the 1970s.

Interestingly, there have been very few "partial acquisition" cases since Du Pont. The Supreme Court has not returned to the subject. At the court of appeals level, the leading case is *U.S. v. Dairy Farmers of America*.[87] There, the large dairy cooperative, Dairy Farmers of America ("DFA"), held a 50% interest in National Dairies and then acquired a 50% interest in Southern Belle, a dairy that was the sole competitor of National Dairy in a variety of markets. In their original agreements, DFA had voting rights in both companies, joint operating rights, the ability to veto salaries and major investments, and a long history of profitable joint ventures with both partners. Prior to filing a summary judgment motion, the DFA/Southern Belle operating agreement was modified to eliminate management rights and to make the stock nonvoting. The district court granted summary judgment on the grounds that the government had not demonstrated that DFA had control over Southern Belle under the revised operating agreement, and that without control, there was no Section 7 violation. The Sixth Circuit reversed on several grounds including: because the District Court failed to consider the original agreement under which DFA had control; and because, even under the revised agreement, the government had made out a sufficient case that the *effect* of the acquisition would be to reduce competition.

There are a few scattered district court cases that provide slightly more guidance. In *U.S. v. Tracinda*,[88] Kirk Kerkorian, directly and through Tracinda, owned approximately 48% of MGM's stock and was its controlling shareholder. He also owned 5% of Columbia Pictures stock. In 1978, Tracinda launched and completed a tender offer for around 19% of Columbia Pictures, giving Kerkorian around 25% of Columbia. This led the government to seek divestiture of the Columbia Pictures stock. The court rejected the government's claim on the grounds that Tracinda's acquisition fell within Section 7's "solely for investment" exemption. Central to the court's decision was the "Stockholders' Agreement" which

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[84] Edward Rock, "Controlling the Dark Side of Relational Investing," 15 *Cardozo L. Rev*. 987, 996-998 (1994).
[85] Jesse W. Markham," Merger Policy under the New Section 7: A Six-Year Appraisal," 43 *Virginia Law Review,* 489 (1957).
[86] *Brunswick* 429 US 477 (1977); *U.S. v American Bldg. Maintenance*, 422 US 271, 278 (1975).
[87] 426 F.3d 850 (6th Cir. 2005). One of the authors, Edward Rock, worked on this case as an expert and provided an opinion on the corporate governance aspects.
[88] *United States v. Tracinda Inv. Corp*., 477 F. Supp. 1093 (C.D. Cal. 1979).

limited the extent to which Kerkorian could use his stock "specifically providing that in a shareholders vote for directors, Kerkorian shall vote his stock in favor of the nominees for election of directors as proposed by the management of Columbia, and shall cast this vote proportionately to the other shares present at the meeting and voting in favor of such nominees. Additionally, the contract placed a limit on Tracinda and Kerkorian's Columbia stock ownership at 25.5%."

For the court, the key question was one of control: "Where by stock acquisition one corporation controls another, a combination of the two companies is necessarily created. Where control is nonexistent, there is no combination. Accordingly, in the context of a Section 7 action, this control-investment distinction is not only a valid dichotomy, but is a most useful judicial tool in tackling the investment exemption issue." Because there was no evidence that the stock acquisition was made for the "purpose or even with the slightest intent of controlling Columbia," the court found that the "solely for investment" exemption applied. Interestingly, the court held that the exemption was to be determined by the intent at the time of acquisition, and the fact that the restrictions on the use of the stock only lasted three years was of little importance: "The fact that this contract will last three years, as opposed to ten, twenty or fifty years, bears very little weight upon the ultimate determination of intent at the time of acquisition, although the Court does take it into consideration."

Similarly, in *Anaconda v. Crane*,[89] the issue was an exchange offer by Crane for 22.6% of Anaconda which Anaconda argued would violate Section 7. To avoid that issue, Crane offered to limit its holdings to 22.6%, to commit not to seek representation on the board of directors, and to comply with the provisions of Section 7, including a prohibition against voting its shares to bring about or attempt to bring about a substantial lessening of competition.

Following the Du Pont interpretation of Section 7, the court held that, "Once it is established to the satisfaction of the Court that the acquisition is 'solely for investment,' the statute requires a showing that the defendant is 'using the [stock] by voting or otherwise to bring about, or in attempting to bring about, the substantial lessening of competition . . . .'" In light of the proposed consent order, the court held that Anaconda was unable to carry its burden.

Finally, in *Gulf Western v. Great Atlantic and Pacific Tea Co.*,[90] the Second Circuit affirmed a preliminary injunction against G & W's tender offer for 15% of A & P (G & W already owned 4%). Finding a substantial likelihood that G & W would seek control of A & P, and has the potential to attain that goal, the court held that the "solely for investment" exemption did not apply.[91]

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[89] 411 F. Supp. 1210 (SDNY 1975).
[90] 476 F.2d 687 (2d Cir 1973).
[91] It is interesting to note that these latter cases involved competitor challenges to hostile acquisitions. These challenges have largely disappeared for two reasons. First, the U.S. Supreme Court's decision in *Cargill Inc. v. Montfort of Colorado Inc,* 107 S. Ct. 484 (1986) focused attention on the need for "antitrust injury" as an element of standing. Targets using Clatyon Act Section 7 to resist a hostile tender off typically cannot satisfy that requirement. Second, the effectiveness of the poison pill as a defensive measure post *Moran v. Household International, Inc*. 490 A.2d 1059 (Del. Ch. 1985) meant that genuinely hostile deals eventually disappeared with the result that target boards' approval of the merger (even if under pressure) removed the antitrust issue.

As this summary shows, in applying Clayton Act Section 7 to partial acquisitions, the case law focuses on *two* elements of control. First, these are cross ownership" cases, not "common ownership" cases. In each, there is clear, uncontroversial control over "firm A", with the key question being whether the acquisition of stock provides sufficient control or influence over "Firm B." Du Pont was viewed as maximizing Du Pont's interests and the question was whether it also controlled or influenced GM in an anti-competitive way; DFA controlled National Dairy and the question was the extent of its influence and control over Southern Belle; Kerkorian controlled MGM and the question was the degree of his influence or control over Columbia; Crane was assumed to be looking after Crane's interests and the question was the degree of its influence or control over Anaconda; Gulf Western had effective control over Bohack, the second largest operator of supermarkets in the New York area, and the question was whether its tender offer would give it control or influence over A & P, the largest operator of supermarkets in New York.[92] O'Brien and Salop developed their model for these sorts of *cross* ownership cases, as distinguished form the "common ownership" category that Azar et al. focus on.

Second, in considering whether the challenged stock acquisition will threaten anti-competitive harm, the focus has been on very substantial stock acquisitions (>20%) and the extent to which the stock held or being acquired allowed the acquirer to control the target. In *Dairy Farmers*, in which the acquisition involved a 50% interest, and a long history of cooperation with the other shareholder, the court found that "influence" was sufficient as long as there was proof of anticompetitive effect.

C. The DOJ/FTC Enforcement Policy

Longstanding enforcement policy has been consistent with this interpretation of the cases. Under the 2010 FTC/DOJ Horizontal Merger Guidelines, there are three aspects of partial acquisitions that the enforcement agencies consider: influence over competitive conduct of the target firm; reduced incentives to compete; and access to nonpublic, competitively sensitive information.

The DOJ and the FTC generally have not challenged partial equity acquisitions of less than 20% (with no evidence of control):

- *Denver & R.G.W. R.R.* 387 U.S. 485, 504 (1967) (20% interest);
- duPont, 353 U.S. at 588 (23% interest);
- *F. & M. Schaefer Corp. v. C. Schmidt & Sons, Inc*., 597 F.2d 814 (2d Cir. 1979) (notes convertible into 29% of outstanding stock);
- AT&T acquisition of MediaOne Group (2002): MediaOne held 25% ownership of Road Runner and Time Warner Entertainment which competed with AT&T controlled Excite@Home (divestiture of interest in Road Runner and restrictions on AT&T's interactions with Time Warner)

[92] 476 F.2d 687, 690-91.

- TC Group (Carlyle) and Riverstone Holdings (2007) sought to acquire 22.6% interest in Kinder Morgan while also holding a 50% interest in Magellan Midstream Partners which competed with Kinder Morgan (FTC consent decree: remove agents from the Magellan boards; prohibited anything but a passive interest; no sharing of nonpublic information)

- *Crane Co. v. Harsco Corp*., 509 F. Supp. (D. Del. 1981) at 123 (5% interest and a proposed tender offer for an additional 15%);

- *United Nuclear Corp. v. Combustion Engineering, Inc.,* 302 F. Supp. (E.D. PA 1969) at 540 (21% interest);

- *Metro-Goldwyn-Mayer, Inc. v. Transamerica Corp*., 303 F. Supp. 1344, 1354 (S.D.N.Y. 1969) (slightly less than 17% interest);

- *Am. Crystal Sugar Co. v. Cuban American Sugar Co.*, 152 F. Supp. (D.C.S.D.N.Y.1957), aff'd, 259 F.2d 524 (C.A.2d Cir., 1958) at 392 (23% interest).

- *U.S. v. CommScope, Inc. and Andrew Corporation*, 72 Fed. Reg. 72,376 (2007) (proposed final judgment and competitive impact statement, requiring divestiture of 30% ownership interest);

- *Clear Channel Communications, Inc. and AMFM Inc.,* Merger Settlement, 66 Fed. Reg. 12,544 (2001)(proposed final judgment and competitive impact statement, requiring merging radio broadcast companies to divest acquired party's 29% equity interest in advertising company that competed with acquiring party's subsidiary);

- AT&T, 1999 U.S. Dist. LEXIS 16731 (final judgment) (TCI's 23.5% ownership interest in Sprint to be sold to an unrelated party prior to merger with AT&T);

- *United States v. Rockwell Int'l Corp*., 1980 U.S. Dist. LEXIS 16425 (W.D. Pa. 1980) (consent decree ordering divestiture of 29% interest);

- *Zeneca Grp., 127 F.T.C. 874 (1999)* (decision and order) (in consent decree resolving objections to the Astra/Zeneca merger, Zeneca required to divest 3% interest in company that competed with merger partner Astra).

D. Professor Elhauge's Harvard Law Review essay

As noted above, Professor Elhauge argued recently that the Azar et al. research is sufficient to establish a violation of Clayton Act Section 7 under current law. In light of our disagreement, and the fact that Posner et al. rely so heavily on his analysis, it is worthwhile to examine his arguments in

detail.[93] As our earlier review of the case law and DOJ/FTC enforcement policy shows, Prof. Elhauge is arguing for a dramatic extension of current law and enforcement policy.

Professor Elhauge starts by arguing that under the operative paragraph of Section 7, stock ownership by an investor in multiple firms that "lessens the incentives of the firms to compete with each other in a sufficiently concentrated market" are illegal.[94] For this proposition, he cites only the *Dairy Farmers* case and the DOJ/FTC Merger Guidelines at Section 13 ("Partial Acquisitions."). As we have seen above, that case – involving a 50% shareholder that had or shared control of National Dairy acquiring a 50% interest in the sole competing dairy – involved extreme facts, and is not remotely similar to institutional investors' existing common ownership in the airline industry in which individual institutional investors do not control any of airlines. The reference to the Merger Guidelines brings us back to the DOJ/FTC enforcement policy, discussed above, which makes clear that, in the absence of a right to appoint directors, acquisitions of less than 20% are not challenged.

Elhauge then goes on to argue that, under the merger guidelines, the enforcement agencies should investigate "any horizontal stock acquisitions that have created, or would create, an MHHIΔ of over 200 in a market with an MHHI over 2500, in order to determine whether those horizontal stock acquisitions raised prices or are likely to do so." Here, Elhauge assumes that HHI measures and MHHI measures are appropriately commensurate, and applies the existing guidelines without any adjustment, despite the fact that the Horizontal Merger Guidelines rely on HHI, not MHHI and do not equate the two. Moreover, for the reasons outlined above, equating MHHI with HHI in the common ownership context is problematic. Finally, given the odd properties of MHHI and MHHIΔ, as outlined above, the assertion that the enforcement authorities should investigate any stock acquisition that increased MHHIΔ by more than 200 in a market with an MHHI of over 2500 would divert of scarce DOJ and FTC resources, without any reasonable basis for suspecting anticompetitive effects.

He then considers whether institutional investors' acquisitions would fall within the "solely for investment" exemption. Elhauge challenges both elements of the "solely for investment" exemption. On the first prong, he suggests that even index investing – in which a fund seeks to track an index and does not choose individual stocks – will not be considered a purchase "solely for investment" because index investors do not follow a "passive" approach to involvement in corporate governance. Indeed, he goes so far as to claim that "The influence that negates the passive investor exception need not involve any direct communication from horizontal shareholders to managers. Managers know who their shareholders are and what best serves the shareholders' interests."[95] This is a very narrow reading that renders the first clause almost meaningless, a reading that finds no support in case law.[96]

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[93] Jon Baker published an earlier response to Prof. Elhauge's argument that takes a different approach than we do. Jonathan B. Baker, "Overlapping Financial Investor Ownership, Market Power, and Antitrust Enforcement: My Qualified Agreement with Professor Elhauge," 129 *Harvard L. Rev. Forum* 212 (2016).
[94] Elhauge at 1303 n. 178.
[95] *Id*. at 1307 (footnote omitted).
[96] Indeed, institutional investors were the paradigmatic investor for whom the "solely for investment" exemption was created. Footnote 119 (Marian Bruno speech) infra.

Continuing, he argues that even if index funds' investments would qualify as "solely for investment," they would fail the second requirement, namely: "and not using the same by voting or otherwise to bring about, or in attempting to bring about, the substantial lessening of competition," and thus would not be exempt from Section 7.

In arguing that the routine acquisition and voting of shares in concentrated industries falls outside of this provision, Elhauge relies heavily on pages 597-606 of *U.S. v. DuPont* (GM).[97] There, in stark contrast to the kinds of corporate governance activities that institutional investors engage in with portfolio firms, the Supreme Court reviews in detail the efforts that Du Pont executives made to use the stock holdings and leadership position (Pierre du Pont was the CEO of General Motors during the early years) to induce GM to purchase more Du Pont products. After reviewing this history, the court concluded that:

> "The fact that sticks out in this voluminous record is that the bulk of du Pont's production has always supplied the largest part of the requirements of the one customer in the automobile industry connected to du Pont by a stock interest. The inference is overwhelming that du Pont's commanding position was promoted by its stock interest and was not gained solely on competitive merit."[98]

In the context of the Du Pont opinion, the "use" of the stock went well beyond "normal" corporate governance engagement (such as voting the shares and engaging with management on strategic direction) to active involvement in the day to day management. As such, it is a weak precedent for the claim that institutional investors' ordinary corporate governance activities would deprive them of the "solely for investment" exemption.

Professor Elhauge goes on to assert that "The solely-for-investment element has been found to be met *only* when the investor committed either to not vote its stock or (in what amounts to the same thing) to vote the shares in the same proportion as other shareholders vote, often with the additional requirements that the investor not nominate directors, have any representative on the board, or exert any other form of influence over management," (emphasis added) with citations to *Tracinda* and *Anaconda*. This is a bit of an overstatement. In *Tracinda*, the court found that Kerkorian, who controlled MGM, fell within the exemption without making any findings as to whether his commitment to vote his Columbia shares for management nominees and to use mirror voting was necessary. In *Anaconda*, Crane committed not to put representatives on the board but made no commitments on how it would vote its shares. Furthermore, because the DOJ and FTC rarely challenge acquisitions of less than 20%, we do not have many examples of their views on what sort of restrictions are necessary at this level of ownership to come within the "solely for investment" exemption.

In this connection, Elhauge goes on to argue that the routine corporate governance activities engaged in by institutional investors – engaging in direct discussion with corporate management and occasionally trying to influence corporate management by voting or threatening to vote against them –

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[97] *United States v. E.I. du Pont de Nemours & Co.*, 353 U.S. 586 (1957).
[98] *DuPont* (GM) at 605.

take the institutions out of the exemption. There is no legal basis for this claim. For the large diversified funds, there is no evidence that they engage with the managers of firms in concentrated industries on competitively sensitive topics. Moreover, with regard to engaging with them on issues of general corporate governance – what is the firm's succession plan? Do you have a strategic plan? – none of the partial ownership cases provides a legal basis for the claim that this degree of engagement is inconsistent with the "solely for investment" exemption.

Finally, Elhauge argues that "even purely passive investors are liable for actual anticompetitive effects." According to Elhauge, if the Azar et al. research is correct, then "no matter how passive investors may be, they are still liable if their stock acquisitions or usage actually lessen competition." This cannot be correct as a matter of straightforward statutory interpretation. The language of the second condition of the exemption explicitly requires that the shares be *actively* employed: "and not *using* the same by voting or otherwise *to bring about*, *or in attempting to bring about*, the substantial lessening of competition."[99] To assert that purely passive holdings – buying the shares and "putting them in the drawer" -- fall outside of this exemption, as Elhauge does, is to ignore the plain statutory meaning. Elhauge points to no authority in support of this reading.

In his follow-up article that responds, in part, to our earlier working paper, Prof. Elhauge points to the following sentences from *Dairy Farmers*, "We . . . do not agree with the ... conclusion that a lack of control or influence precludes a Section 7 violation" because "even without control or influence, an acquisition may still lessen competition." We are largely in agreement with Prof. Elhauge that, under Clayton Act Section 7 and without regard to the "solely for investment" exemption, a stock acquisition that lessens competition is a prima facie violation of Section 7, whether or not it provides control or influence. That said, this is subject to the "solely for investment" exemption which was not at issue in *Dairy Farmers*. Moreover, as the DOJ/FTC enforcement policy shows, establishing anticompetitive effect for stock acquisitions below 20% that do not carry the right to appoint directors is extremely difficult, and challenging such acquisitions would be an extension beyond current enforcement policy. Unlike Prof. Elhauge, we are not convinced that Azar et al.'s analysis establishes that shareholding in the range of 6-7% by BlackRock, Vanguard and State Street has, in fact, had any anticompetitive effect much less that it has resulted in an increase in ticket prices on the order of 10%.

That said, if, in five or ten years, the consensus among finance and antitrust economists (based on these and subsequent studies) is that common ownership by institutional investors results in 10% higher prices in concentrated industries, we expect that enforcement policy will change and that the law will follow suit, either through re-interpretation of Section 7, narrowing construction of the "solely for investment" exemption, or through amendment of the statute. Most antitrust scholars would agree that, over the medium or long term, antitrust law generally follows the lead of antitrust economics, especially when a consensus develops.

Professor Elhauge, we think, would agree that he is breaking new ground and going well beyond existing legal interpretation and enforcement policy. Looking at the language of the statute and the

[99] Emphasis added.

existing case law, he believes that the law can and should be extended to reach the common ownership situation. Indeed, his Harvard Law Review article explicitly tries to convince enforcement authorities, potential plaintiffs and plaintiff antitrust lawyers to bring enforcement actions or private class actions against the airlines and the banks. For what it is worth, our reading of the economics and the law is that such a lawsuit would be difficult to win and risky to undertake. By contrast, the scenario sketched out above in part I, we submit, would fall solidly within existing law and long standing antitrust precedent.

Part IV. Policy Implications: Enforce Section 1? Ban Index Funds?

Azar et al. and the Elhauge Harvard Law Review article have attracted substantial attention and raise the question of the appropriate policy response. In this section, we analyze the proposal of Eric Posner, Fiona Scott Morton, and Glen Weyl, and then make a proposal of our own that seeks to shift the focus away from what we take to be a highly speculative concern and back to what we take to be the main antitrust issue arising from common ownership, as set forth in Part I.

A. The Posner et al. "solution"

Eric Posner, Fiona Scott Morton, and Glen Weyl move the discussion to the next stage. They take as given that Azar et al.'s results are compelling and that Elhauge's antitrust analysis is largely persuasive. They then ask how the law can provide safe harbors for institutional investors. Although we disagree with Posner and his co-authors as to whether there is, in fact, an antitrust problem that needs to be solved, in this section, we consider the attractiveness of Posner et al.'s safe harbors and we compare them to what we take to be the existing statutory safe harbor, namely, "putting the shares in a drawer."

Posner et al. state their preferred rule as follows:

> No institutional investor or individual *holding* shares of more than a *single effective firm* in an *oligopoly* may *ultimately own* more than 1% of the market share unless the entity holding shares is a free-standing index fund that commits to being *purely passive*.

Stated this way, the rule in fact is comprised of two sub-rules that we will discuss separately.

1. Alternative #1: Invest in only one firm in a concentrated market

The first way to comply with the Posner et al. proposed rule is for an institutional investor to buy only one of the major firms in a concentrated market. Thus, e.g., BlackRock could only buy one airline. Vanguard, likewise, could only buy one airline (with no limits on whether BlackRock and Vanguard invest in the same or different airlines). An investor that so limited itself would be free to engage fully in corporate governance activities without any additional concern for antitrust liability.

There are some obvious problems with the implementation of such a rule, which they partially address. These include: How does one characterize multiproduct firms? How will the institutions know which are the markets in which they are only allowed to buy one firm? Which are the firms that they must choose from and who will decide? How will foreign firms be treated? Will investors have to divest once a market is deemed an oligopoly? How long will they have to do so? And so forth.

They also address a second set of issues, namely, whether such a rule will interfere with adequate diversification? Here, again, they have answers rooted in finance theory. They correctly point out that under standard finance theory one can get the benefits of diversification among, e.g., large cap firms, through purchasing far fewer than all the firms in the S & P 500 index.

Our concern with this proposal is only partly related to the numerous and sundry problems of implementation, although they would be substantial. Our primary concern is that, without modification (e.g., an index fund safe harbor) the Posner et al. "solution" would prohibit the existing index fund business model, an extraordinarily successful product for investors that has provided a valuable and low cost means to save for retirement.[100] We have little doubt that their proposal will substantially increase the cost of "managing" index funds – a cost that will undoubtedly be borne by the investors in these funds. Moreover, to the extent that investors are interested in an index product, investing in only one firm in a concentrated market would not provide it. With one fund investing in, for example, JP Morgan Chase, United Airlines and Apple, while another fund owns Citi, Delta, and Microsoft (and numerous other combinations), actual results would vary widely and no longer track an index.[101] Diversification and tracking are two distinct concepts that serve different goals that sometimes overlap.

2. Alternative #2: Limit investments to 1% and buy whatever you want

An alternative means of complying with the Posner et al. rule is to limit holdings to 1%. Institutional investors that met this constraint could invest in all of the firms in the industry. We note, however, that the rule as stated is ambiguous as to whether index funds that limited their size to 1% would be free to engage in any governance activities they might choose.

On either interpretation, the effect of this "safe harbor" would be to impose a 1% cap on traditional index funds. From an index fund's perspective, this is not an appealing constraint. To make it effective, the larger institutional investors (BlackRock, Vanguard, and State Street) would each have to split themselves up into multiple independent units, which would raise other problems of implementation. Because the proposal focuses on fund-families, it would not be sufficient for Vanguard to split its S & P 500 Index fund into multiple sub-funds, each a separate legal person, none of which would be larger than 1%, with a common manager charged with tracking the index.[102] From the

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[100] Full disclosure: both of the authors have substantial retirement monies invested in Vanguard's 500 Index fund.

[101] Note that index funds are used for purposes other than diversification. For example, index funds or options tied to index funds can be used to hedge a portfolio.
http://www.schwab.com/public/schwab/active_trader/trading_insights/options_etfs_global/how_to_hedge_your_portfolio.html

[102] Azar et al. and Posner et al. pay little attention to the actual legal or organizational structure of asset management in which "BlackRock" or "Vanguard" is sometimes used to refer to the fund manager or advisor,

investor's perspective, the most dramatic change would be that costs would go up. It is hard to imagine that each of these mini-Vanguards could continue to charge five basis points for ownership of shares in its S & P 500 Index fund.

3. Alternative #3: Invest without limit and put the shares in a drawer

On our view, even if Azar et al. are right in their claims of anticompetitive effects, diversified investors could comply with Section 7 by buying shares, taking no involvement whatsoever in corporate governance ("putting the shares in a drawer"), using mirror voting in which shares are automatically voted in the same proportion as other shares, or passing through the votes to the beneficial owners. Although, as discussed above, we do not view current law as requiring this degree of passivity in order to take advantage of the "solely for investment" exemption, it would provide a safe harbor were the more extreme interpretations of the law adopted.[103]

This follows from our interpretation of the "solely for investment" exemption to Section 7, sketched out above. It is hard to imagine an investor that more clearly instantiates buying shares "solely for investment" than an index fund or other widely diversified investor that has never sought control and does not nominate directors. Governance passivity by institutional investors ("putting the shares in a drawer") will also satisfy the second part of the exemption: "and not using the same by voting or otherwise to bring about, or in attempting to bring about, the substantial lessening of competition." Because the statutory language requires taking some action – "using . . . by voting . . . to bring about or in attempting to bring about . . . " – pure passivity by institutional investors must fall within it. Otherwise nothing would.

If this is correct as a legal matter, it is our sense that, compared to the alternatives, large institutional investors would prefer this option (certainly for index funds and likely for all of their investment funds) as it would allow them to continue their basic business model undisturbed. In doing so, Vanguard would still be able to comply with SEC requirements to disclose its voting guidelines and how it votes. The guidelines would be simple: we engage in mirror voting in order to avoid the risk of substantial antitrust liability. And, then, reports of proxy votes would be easily generated and entirely uninteresting.

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sometimes to the individual fund itself, and sometimes to the "family" of funds. In fact, each fund (e.g., Vanguard's S & P 500 Index fund) is a separate legal entity, with its own board of directors, that enters into a management contract typically with the management company. The investment power is held by the management company while the voting power is typically held by the fund. There is therefore substantial ambiguity in the SEC Form 13F disclosure that Azar et al. and others rely upon with the relevant "ownership" numbers depending sensitively on the hypothesized channel of influence: if the channel is voting, then who has the right to vote the shares is relevant; if the channel is "exit," then the right to sell is relevant.

[103] This approach would also comply with Posner, Scott Morton and Weyl's proposal that would permit an index fund to grow beyond 1% so long as it "commits to engage in no communication with top managers or directors, to vote its shares in proportion to existing votes so that it has no influence in any corporate governance decision and to own and trade stocks only in accordance with clear and non-discretionary public rules, such as matching an index as closely as possible."

Vanguard could likewise comply with the far more fragmentary suggestions from the Department of Labor and the SEC that they have a "fiduciary duty" to their investors to vote in an informed manner. Surely, if doing so were to expose the funds and their investors to substantial risk of antitrust liability, including, according to Elhauge, treble damages, avoiding that risk by not voting (or mirror voting) would comply with whatever fiduciary duties Vanguard has.

4. Alternative #4: Index through derivatives

A final alternative would be for institutional investors to construct their optimal portfolio for concentrated markets by using derivatives. Derivatives, unlike shares, do not carry votes so, under Posner et al.'s approach, would be exempt.

Whether this would be as attractive to large institutional investors as Alternative #3 would depend on cost. For large funds investing in large companies, adequate capacity may be lacking. Also, to the extent that the counterparties accumulated large stock positions in order to hedge, a crucial question would arise -- how they would vote those shares?

5. Implications for Corporate Governance

Assume that we are right in how diversified investors are likely to respond to the alternatives offered by Posner et al. by adopting Alternatives #3 or #4. What would the consequences of this be for corporate governance?

The first effect would be to push many broadly diversified institutional investors, including all index funds, towards governance passivity. Recall that competition among index funds is not over the performance of the index, but over cost, tracking error, and customer service. This means that the financial incentive of institutional investors to spend money on corporate governance (especially firm specific governance) is weaker than for "highly engaged" investors that make large undiversified investments in particular firms.[104] Thirty years of efforts have convinced the widely diversified, long term institutions to engage in limited corporate governance activities, but, with relatively weak financial incentives, it will not take much antitrust risk to induce these firms to return to the status quo ante, cut their corporate governance groups substantially, and thereby reduce their costs.

A return to passivity by the widely diversified funds will empower "long only" shareholders. This group would include the actively managed mutual funds such as T. Rowe Price and the activist hedge funds. By not voting or adopting mirrored voting, the diversified institutions would significantly magnify the impact of both sorts of investors.

Moreover, and even more concerning, rather than having to convince the large diversified institutional investors to support them in contests with management, firms would gain their support automatically through mirror voting. If this happened, the emerging equilibrium – in which the diversified institutional investors are the de facto "deciders" in corporate law controversies between

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[104] Edward B. Rock, "The Logic and (Uncertain) Significance of Institutional Shareholder Activism," 79 *Geo. L. J.* 445-506 (1991).

activists and managers – would be nipped in the bud.[105] For those concerned that activist shareholders already produce a short term bias, eliminating the paradigmatic long term holders from concentrated markets would exacerbate what some already view as a serious problem.

Can we design guidelines, rooted in current economic analysis and law, which will allow institutional investor involvement in corporate governance to develop without exposing consumers to anticompetitive effects? It is to this task that we now turn.

6. Looking Forward: Common Ownership under Clayton Act Section 7

In Part I, we worked through the issues presented by common ownership under Sherman Act Section 1. In that context, the well-established "cartel facilitation" doctrine provides the framework for analysis. With portfolio managers actively engaging with issuers, our opening hypothetical scenario is far from fanciful. Although we know of no examples of this happening, it is sufficiently realistic that the time has come to establish antitrust compliance programs.

At the same time, although we are unconvinced by Azar et al.'s theoretical and empirical analyses and disagree with Elhauge's legal analysis, the issues raised by common ownership under Clayton Act Section 7 are genuinely interesting and important. Indeed, both of us have encountered these issues in working with the Antitrust Division.

We start from the recognition that common ownership may, in some circumstances, raise substantial competitive concerns. *Dairy Farmers* was an important case to bring and was correctly decided. Were Warren Buffett to propose acquiring 51% of each of the major airlines, there would be a significant risk of anticompetitive effects, and we are certain that such an acquisition would and should be prohibited under Section 7 of the Clayton Act. The question is not whether but when common ownership it is likely to be anticompetitive.

A. Standard Cross Ownership

The partial cross ownership cases discussed earlier provide the basis for the current regulatory treatment which we fully support: when a firm buys shares in a competing firm, and the acquisition can affect both unilateral and coordinated conduct, enforcement authorities are appropriately sensitive to these effects. When a firm acquires a controlling interest in a competitor, that is typically treated as equivalent to a merger even if the ownership if less than 100%.

In these partial ownership situations, transactional planners sometimes try to design governance structures that purport to eliminate the ability of the acquiring firm to exercise control. In a well-known example, Northwest Airlines acquired around 14% of the outstanding shares in Continental Airlines, shares that carried in excess of 50% of the voting power. In an attempt to neutralize the obvious anticompetitive concerns given the overlap between Northwest's and Continental's routes, the parties entered into a governance agreement that purported to prevent Northwest from controlling or influencing Continental. The Department of Justice took a contrary view, and argued that there would

[105] Marcel Kahan & Edward Rock, "Anti-Activist Poison Pills," working paper (2017).

remain a long-term competitive concern.[106] In cases such as this, the key questions are whether the cross ownership has a significant effect on unilateral behavior and whether, despite the governance agreement, there is sufficient influence or control of the competitor to threaten coordinated effects.

As the earlier discussion of enforcement actions and consent decrees shows, this is not a new issue. The enforcement authorities focus on the magnitude of the ownership interest in evaluating the unilateral effects, and the degree of influence or control in evaluating the coordinated effects.

B. Common Controlling Shareholders

It is a small step from standard cross ownership cases to cases in which competitors have a common controlling shareholder. The easiest case is when a controlling shareholder of Firm A proposes acquiring a controlling interest in competitor Firm B. Such an acquisition should be treated the same as a proposed merger because the anticompetitive potential is identical.

In the *Dairy Farmers* case, discussed above, the first version of the transaction had this character. DFA owned a 50% interest in National Dairies and, through various control rights, had at least shared control over National Dairies. When DFA subsequently proposed acquiring Southern Belle, a competing dairy, the Antitrust Division analyzed this as if it were a merger of National Dairies and Southern Belle. After the government challenged the acquisition, DFA changed the operating agreement in Southern Belle to make the shares non-voting and to limit DFA's other control rights.

As in the standard cross ownership cases involving governance agreements, the question often becomes whether the governance structures adopted do, in fact, insulate Firm B from control or influence of acquiring Firm A.

C. Common Ownership without Control

The same principles should apply in the general common ownership context.

1. How large a stake is needed for control?

When an investor is a controlling shareholder of Firm A, the analysis will be under section A or B above. How large a percentage of stock is necessary for control?

Here, the law treats control differently in different contexts. Under Delaware corporate law, control is presumed when a shareholder has more than 50%.[107] Between 40-50%, there are cases coming out both ways, depending on a variety of factors including the holdings of other investors and

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[106] One of us (Rubinfeld) was at the DOJ when this case was prosecuted. See, e.g., "Competition in the Airline Industry," Testimony of A.A.G. Joel I. Klein before the Senate Committee on Commerce, Science and Transportation, March 12, 1999. The other of us (Rock) was retained as a corporate governance expert by the DOJ, provided a report and was deposed in connection with the extent to which the governance agreements prevented Northwest from exercising influence or control over Continental.

[107] Marcel Kahan and Edward Rock, How to Prevent Hard Cases from Making Bad Law: Bear Stearns, Delaware, and the Strategic Use of Comity, 58 *Emory L. J.* 713, 743 (2009).

whether the shareholder has representation on the board.[108] When the holding is less than 40%, there are extremely few cases in which control is found and each involves board representation.[109] In the corporate context, the primary implication of control is with regard to the regulation of conflicts of interest that may injure non-controlling shareholders.

In federal Securities Regulation, "controlling person" liability under 1933 Act Section 15 and 1934 Act Section 20(a) is a species of culpable participation liability imposed on firms and individuals and thus serves both compensatory and deterrence goals. Majority ownership coupled with the ability to appoint directors is typically sufficient. Minority ownership, by contrast, often is not: "courts have dismissed control person claims against companies that owned a 22-percent [fn. 4] and a 30-percent [fn. 5] interest in the primary violator, and claims against defendants who owned 38 to 50 percent of the stock of the primary violator and also placed designees on the primary violator's board [fn. 6]."[110]

The kind of control relevant for antitrust may be different from the relevant degree of control in corporate law or securities regulation. Given the focus on facilitating coordinated conduct, board representation – even just one director – will loom large. It is certainly possible for a firm with a share ownership substantially less than 50 percent, and arguably as low as 20 or 25 percent, to place individuals on a board and to achieve substantial influence over competitive decisions as a result of bargaining among board members, even if perhaps contrary to fiduciary duties to shareholders. Such was the argument put forward when the Department of Justice threatened to sue to block Primestar, Inc. (a consortium of five cable television companies) from acquiring a satellite television provider.[111] The deal was eventually abandoned. Generally, as our earlier discussion shows, antitrust authorities have not challenged acquisitions of less than 20% by a competitor especially when there is no board representation. This reflects a sense that, below this level, there is generally insufficient influence or control to raise serious antitrust concern.

2. A Proposed "Safe Harbor" for <15%, No Board Representation, and "Normal" Corporate Governance Activities

With the attention that the Azar et al. generated literature has received, we worry that institutional investors will, out of concern for antitrust risk, withdraw from what we view as normal and appropriate involvement in corporate governance. Non-specialist general counsel of investors who read Prof. Elhauge's Harvard article might reasonably ask, "Is the bother of corporate governance worth the risk?"

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[108] *Id*.

[109] E.g., *In re Zhongpin Inc. S'holders Litig.,* C.A. No. 7393-VCN (Del. Ch. Nov. 26, 2014)(17.3% plus board and management positions).

[110] https://www.law360.com/articles/272035/control-person-liability-tips-for-investment-firms Citing [4] *In re Deutsche Telekom*, No. 00 CIV 9475 SHS, 2002 (S.D.N.Y. Feb. 20, 2002); [5] *In re Flag Telecom Holdings Ltd. Sec. Litig*., 352 F. Supp. 2d 429 (S.D.N.Y. 2005); and [6] *Zishka v. American Pad & Paper Co.,* No. CIV. A. 3:98-CV-0660-M, 2001 (N.D. Tex. Sept. 28, 2001), aff'd, 72 Fed. Appx. 130 (5th Cir. 2003).

[111] See, Daniel L. Rubinfeld, "The Primestar Acquisition of the News Corp./MCI Direct Broadcast Satellite Assets, 16 *Review of Industrial Organization* 193 (2000).

a. The "Safe Harbor"

To avoid this outcome, we propose a "safe harbor" for investors who hold 15% or less, who do not have board representation, and who engage in no more than "normal" corporate governance activities. We believe that this approach strikes the right balance between antitrust and corporate governance concerns. Based on our reading of current economic evidence, investors who fit into this safe harbor pose no significant antitrust risk.

b. What are "Normal Corporate Activities"?

Over the last twenty years, a huge amount of attention has been devoted to getting institutional investors involved in corporate governance. To a large degree, these efforts have been successful. Now, the largest institutional investors have substantial proxy voting groups that take their responsibilities as shareholders very seriously. Out of these efforts, a rough consensus of "best practices" has emerged.

There are several elements to the current approach. First, it complies with applicable regulations. Thus, in response to SEC rulemaking,[112] institutional investors have adopted and publicized "proxy voting policies" and report how they vote. These voting policies tend to be quite comprehensive and to signal to corporate management the investor's views on various fundamental issues of corporate governance. Thus, e.g., with regard to governance, Vanguard has announced that "The funds will generally support proposals to declassify existing boards (whether proposed by management or shareholders), and will block efforts by companies to adopt classified board structures in which only part of the board is elected each year."[113]

Second, large institutional investors spend a substantial amount of time meeting with managers of portfolio companies. As Vanguard has explained

> Although proxy voting at shareholder meetings is important, it's only one component of our corporate governance program. We believe that engaging in direct discussions with the leaders and directors of the companies in which the Vanguard funds invest is a particularly effective way for us to advocate for our views. During our conversations with corporate leaders and board members, we strive to provide constructive input that will better position companies to deliver sustainable value over the long term for all investors.
>
> During the past 12 months, we conducted over 800 engagements with the management or directors at companies of different types and sizes, encompassing nearly $1 trillion in Vanguard fund assets. Our engagement volume represents an increase of 19% over the previous 12-month period and 67% over the past three years. Though we engage with companies for a variety of reasons, we are most likely to engage because we are preparing to vote at the shareholder

[112] Edward B. Rock, Institutional Investors in Corporate Governance, Oxford Handbook of Corporate Law and Governance (Jeffrey Gordon and Wolf-Georg Ringe, editors) at Section 7.2, 7.3 (2015). See, e.g., 17 CFR 275.206(4)-6 - Proxy voting.

[113] https://about.vanguard.com/vanguard-proxy-voting/voting-guidelines/

> meeting, an event has occurred at the company that could affect stock value, or our research has uncovered a specific governance concern that is not on the ballot.
>
> ***
>
> Our engagement efforts include conference calls or in-person meetings with executives and/or directors, formal letters requesting change, and participation in broader initiatives advocating for change. Direct conversations with company managers and directors were the primary form of engagement. [114]

Vanguard, and many other institutional investors, structure their engagement around basic, fundamental principles including "board composition and governance, board responsibilities, shareholder rights, transparency, succession planning, executive compensation, and responsibilities of asset managers such as Vanguard."

Many of these principles have been summarized in a widely circulated summary of principles applicable to corporate governance, asset management and corporate behavior, "Commonsense Corporate Governance Principles" signed by the CEOs of 13 majors corporations and investors.[115] These principles include a role for asset managers, including urging active engagement with companies, raising critical issues, and evaluating the "board's focus on a thoughtful, long-term strategic plan and on performance against that plan."

Mary Jo White, while chair of the SEC, likewise pushed for engagement between long term investors and firms.[116]

In an important article describing current modes of engagement, Matt Mallow and Jasmin Sethi of Blackrock describe a variety of styles, ranging from "light" engagement to more intensive modes. As they point out, engagement has become more structured and standardized through means such as the "SDX Protocol."[117] In identifying engagement topics, SDX uses, as examples: board composition and leadership; board oversight of capital allocation; executive succession; takeover defenses; management performance.[118]

Despite the use of terms like "admitted" to cast suspicion on the routine interactions with corporate management, [119] there is nothing suspicious about the sort of engagement with management that institutional investors report.[120] Surely, in a sound corporate governance system, we want the

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[114] https://about.vanguard.com/vanguard-proxy-voting/update-on-voting/

[115] http://www.governanceprinciples.org/

[116] Mary Jo White, Chair, U.S. Sec. & Exch. Comm'n, Building Meaningful Communication and Engagement with Shareholders (June 25, 2015), http://www.sec.gov/news/speech/building-meaningful-communicationand-engagement-with-shareholde.html .

[117] http://www.sdxprotocol.com/what-is-the-sdx-protocol/

[118] In giving these examples of "normal corporate governance" activities, we do not mean to suggest that other activities are presumptively suspect or anti-competitive.

[119] Elhauge, supra (HLR) at 1307.

[120] Joseph A. McCahery, Zacharias Sautner & Laura T. Starks, *Behind the Scenes: The Corporate*

largest shareholders to engage in direct discussions with corporate management and to use their votes to influence managers. Such reports do not remotely approach the sort of evidence one would need either to show that institutional investors have organized a cartel in violation of Sherman Act Section 1 or that their stock ownership is anticompetitive.

c. The Fit with Current Law

These notions of "normal corporate governance activities" fit comfortably within the "passive investment" concepts in federal securities regulation. Under Rule 13D, promulgated pursuant to Section 13(d) of the Securities Exchange Act of 1934, investors that acquire more than five percent are obligated to disclose their holdings on Schedule 13D within ten days. Certain categories of shareholders that hold more than 5% can file the substantially less burdensome 13G "short form" beneficial ownership disclosure rather than the full 13d disclosure.[121] First, "qualified institutional investors" (QIIs) including registered broker dealers, registered investment companies and registered investment advisors, who acquired the securities in the ordinary course of business and not with the purpose nor with the effect of changing or influencing the control of the issuer may and often do take advantage of this option. Second, 13G filing is also available to "passive investors" defined as an investor that "(i) has not acquired the securities with any purpose, or with the effect of, changing or influencing the control of the issuer, or in connection with or as a participant in any transaction having that purpose or effect, other than a qualified institutional investor;[122] and (ii) is not directly or indirectly the beneficial owner of 20% or more of the class."[123]

Mutual funds typically file 13Gs as QIIs, while hedge funds that have a genuine intent not to seek to change or influence control take advantage of the passive investor exemption. By contrast, hedge funds with a history of activism, and that have even an inkling that a passive engagement may eventually turn active, are well advised to file a 13D from the outset because of the difficulties of establishing when the "intent" shifted.

Governance Preferences of Institutional Investors, 71 J. FIN. (forthcoming 2016) (manuscript at 1, 8, 31), http://papers.ssrn.com/abstract=1571046 [https://perma.cc/GX8S-SSRX], cited by Elhauge at 1307 n. 196.

[121] It is less burdensome in several dimensions. First, rather than being filed within ten days of acquiring the shares, qualified investors need only file within 10 days of the end of the month of the triggering event requiring the filing, and must amend the Schedule 13G each year within 45 days of the end of the calendar year to report changes. If, however, a 13G filer acquires in excess of 10% of the stock, an amended 13G must be filed within 10 days of the acquisition. Second, it requires substantially less information. Third, Rule 13d-2 requires that 13D filers (but not 13G filers) promptly amend the filing when plans change or when the filer acquires or divests 1% or more. .

[122] A qualified investor has at least $100 million under management and has been permitted by the SEC to trade private placement securities without registering the securities with the SEC.

[123] Rule 13d-1(c).

At least for QIIs, filing a 13G is consistent with engaging in substantial shareholder activism that falls short of a control contest.[124] Such activism could, e.g., include urging management to sell assets or pay a large dividend or change executive compensation, and pushing for the elimination of poison pills and staggered boards.

Although the federal securities regulation concepts of "solely for investment" ownership have kept up with changes in institutional investor involvement in corporate governance, the antitrust standards have not. The Hart Scott Rodino Act requires advanced notice, and approval, before acquiring shares above a relatively low (annually adjusted) threshold.[125] Like Clayton Act Section 7, there is a "solely for investment" exemption for HSR notification that exempts "acquisitions, solely for the purpose of investment, of voting securities, if, as a result of such acquisition, the securities acquired or held do not exceed 10 per centum of the outstanding voting securities of the issuer."[126]

Under HSR, investors meet this standard only if "the person holding or acquiring such voting securities has no intention of participating in the formulation, determination, or direction of the basic business decisions of the issuer."[127] As institutional investors have become more active in corporate governance, the FTC and some of its representatives have suggested that such action is inconsistent with the "solely for investment" exemption. Thus, in a widely followed 2002 speech, Marian Bruno, assistant director of the Premerger Notification Office, Bureau of Competition, FTC, suggested that "[M]any such institutional investors, who served as the model for 'passive' investor behavior when the Rules were first adopted, have become routinely more active in seeking to influence the business decisions of the issuers of voting securities. Some of these large investors have sought to rely on the 'investment only' exemption despite seeking to influence the management decisions of an issuer. This behavior has included both direct and indirect attempts by investors to persuade management to put the issuer up for sale. Such activity is inconsistent with the purely passive intent necessary to rely on the exemption."[128]

[124] Amendments to Beneficial Ownership Reporting Requirements, File No. S7-16-96, SECURITIES AND EXCHANGE COMMISSION, INTERNATIONAL SERIES Release Nos. 1111, 34-39538; 17 CFR Part 240; RIN 3235-AG81; Adopting Release at p. 10, 1998 SEC LEXIS 63, *33.

[125] As of January 2017, that threshold is $78.2 million. https://www.ftc.gov/news-events/blogs/competition-matters/2016/01/hsr-threshold-adjustments-reportability-2016. In addition to the "size of transaction" test, there is also a "size of person" test that is applicable in smaller acquisitions (transactions between $50 million and $200 million). FTC Hart-Scott-Rodino Premerger Notification Program, Introductory Guide II (revised September 2008) available at https://www.ftc.gov/sites/default/files/attachments/premerger-introductory-guides/guide2.pdf .

[126] 15 U.S.C. Section 18A (a)(c)(9); 16 CFR Sections 802.9 and 802.64.

[127] 16 C.F.R. § 801.1(i)(1). See, also, Section 802.9, example 3 ("After the acquisition in example 1, acquiring person "A" decides to participate in the management of issuer X. Any subsequent acquisitions of X stock by "A" would not be exempt under section 7A(c)(9)."). Under current interpretations, having a board representative is inconsistent with the exemption. Bilal Sayyed, A "Sound Basis" Exists for Revising the HSR Act's Investment-Only Exemption, *The Antitrust Source* (April 2013) at TAN 24.

[128] https://www.ftc.gov/public-statements/2002/06/hart-scott-rodino-25; 16 C.F.R. § § 802.9 and 802.64. See, also, John M. Sipple, Jr., Chief, Fed. Trade Comm'n Premerger Notification Office, Remarks Before the N.Y. State Bar Association, Antitrust Section 18 (Jan. 16, 1990) ("A passive investor can meet with management to gather information about its investment and it can vote the stock it holds," but "if a significant shareholder makes

The tension between corporate/securities and antitrust conceptions of "passive investment" has recently come to a head in the enforcement action against ValueAct in connection with the proposed merger between Baker-Hughes and Halliburton. ValueAct, an activist hedge fund that often seeks board representation,[129] acquired shares in both companies and actively encouraged both boards to complete the merger. It did not file under HSR on the grounds that its purchases were "solely for investment." The U.S. Department of Justice filed a civil suit alleging a violation of HSR reporting requirements, and argued that ValueAct did not qualify for the "solely for investment" exemption because it "used its position to influence decision-making at both companies."[130] In the settlement in which ValueAct agreed to a civil penalty of $11 million, ValueAct agreed not to engage in a variety of contacts with the boards of either company without seeking HSR clearance:

> (A) Propose to an Officer or Director of the Issuer that the Issuer merge with, acquire, or sell itself to another Person;
>
> (B) Propose to an Officer or Director of any other Person in which the Defendant owns Voting Securities or an equity interest the potential terms on which that Person might merge with, acquire, or sell itself to the Issuer;
>
> (C) Propose to an Officer or Director of the Issuer new or modified terms for any publicly announced merger or acquisition to which the Issuer is a party;
>
> (D) Propose to an Officer or Director of the Issuer an alternative to a publicly announced merger or acquisition to which the Issuer is a party, either before consummation of the publicly announced merger or acquisition or upon its abandonment;
>
> (E) Propose to an Officer or Director of the Issuer changes to the Issuer's corporate structure that require shareholder approval; or,
>
> (F) Propose to an Officer or Director of the Issuer changes to the Issuer's strategies regarding the pricing of the Issuer's product(s) or service(s), its production capacity, or its production output.

This settlement has raised concerns not so much because of the particular case – the Baker-Hughes/Halliburton transaction raised serious antitrust concerns and was ultimately abandoned after

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suggestions to the issuer's management that it undertake certain actions, whether or not they require shareholder approval, such conduct may be construed as evidencing an intent inconsistent with an investment only intent.").

[129] See, e.g., http://www.forbes.com/sites/antoinegara/2015/01/05/hedge-fund-seeks-board-seats-transparency-at-governance-specialist-msci/#1781a9232bd0; https://www.theguardian.com/business/2016/feb/17/rolls-royce-ready-to-give-activist-investor-valueact-a-board-seat .

[130] Julia La Roche, The $19 billion hedge fund targeted by the government is fighting back, Business Insider, April 4, 2016, quoting Assistant Attorney General Bill Baer. [Alternative cite: DOJ Release, ValueAct Invested Over $2.5 Billion in Halliburton and Baker Hughes, Failed to Notify Antitrust Authorities, Wrongly Claiming No Intent to Influence Companies' Business Decisions ("ValueAct's substantial stock purchases made it one of the largest shareholders of two competitors in the midst of our antitrust review of the companies' proposed merger, and ValueAct used its position to influence decision-making at both companies.")]

opposition from US and EU antitrust regulators [131] – but to the extent that it represents the FTC's current view of conduct inconsistent with the "solely for investment" exemption to HSR. Many of these actions are just the sort of things that responsible institutional investors routinely discuss with the managers of portfolio firms, including suggestions to eliminate a staggered board (item E), comments on the wisdom or lack of wisdom of a proposed merger or the merger price (items B, C and D), and suggestions made to the board that increasing capacity might be ill advised (item F).[132] The SEC was sufficiently concerned by the ValueAct settlement that it modified its Compliance and Disclosure Interpretations to clarify that not qualifying for the HSR "solely for the purpose of investment" exception due to a shareholder's efforts to influence management on a particular topic does not, by itself, disqualify the shareholder from reporting on 13G.[133]

To the extent that the ValueAct settlement represents the current thinking on the limits to the "solely for investment" exemption, it is overbroad. Indeed, given the current modes of engagement between large institutional investors and corporate management described below, if the conduct identified in ValueAct is in fact inconsistent with the exemption, then all of the large institutional investors are currently in continuous daily violation of HSR as they buy additional shares in their index funds. It is hard to imagine that the FTC would like, or could process, the number of HSR filings that would result from such an approach, taken seriously. Because of this, we prefer to think of the ValueAct settlement as a product of its special facts.

Nothing we say above should be construed to suggest that we think that conduct outside of the safe harbor is necessarily anticompetitive. Rather, such conduct must be analyzed under Clayton Act Section 7 principles.

Conclusion

Investors in firms in concentrated markets whose managers engage actively with portfolio companies must be as alive to antitrust issues as they already are to issues under the securities laws. Just as money managers need to understand their disclosure obligations under 13d, so too they should understand the basics of antitrust. The rudiments are clear: a portfolio manager of a fund that owns stock in competing firms must be careful not to use that stock to facilitate a cartel.

Can common ownership in concentrated markets have anti-competitive effects? Absolutely. We open this article with one hypothetical that is clearly a violation of Section 1 of the Sherman Act with all that entails and a second hypo that is not. Is there substantial evidence that the common ownership by diversified institutional investors currently has anti-competitive effects? Do the existing holdings by diversified institutional investors in concentrated markets violate Section 1 of the Sherman Act or Section 7 of the Clayton Act? Should such investors be forced to hold only one firm in any concentrated

[131] http://www.reuters.com/article/us-bakerhughes-m-a-halliburton-idUSKCN0XS1KW

[132] As we discuss in part I, the topics in Item F may, in certain circumstances, raise antitrust risk. In particular, a portfolio manager with holdings in competing firms in a concentrated market who discusses pricing or capacity levels with competing firms may expose his firm, and the portfolio companies, to significant legal risk.

[133] https://www.sec.gov/divisions/corpfin/guidance/reg13d-interp.htm (July 14, 2016), Question 103.11.

industry? Not as far as we can tell. In this article, we have considered the antitrust attack on widely diversified institutional investor ownership and found it lacking.

But even if the most provocative claims are unconvincing, that should not lull institutional investors and portfolio companies into a false sense of security. Azar et al., Elhauge, and Posner et al. have provided a valuable service in raising the antitrust issue. Moving forward, it is appropriate for scholars, practitioners, institutional investors, and regulators to think about antitrust guidelines for diversified shareholders. We have sketched out and defended a first cut, but more work needs to be done.