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Tackling Horizontal Shareholding: An Update and Extension to the Sherman Act and EU Competition Law - Note by Einer Elhauge

Hearing on Common Ownership by institutional investors and its impact on competition

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Tackling Horizontal Shareholding: An Update and Extension to the Sherman Act and EU Competition Law

Note by Einer Elhauge[*]

1. Horizontal shareholding exists when the leading shareholders of horizontal competitors overlap. In my initial Harvard Law Review article on the topic, I showed that economic theory and empirical evidence both indicate that high levels of horizontal shareholding in concentrated product markets can have anticompetitive effects.[1] I argued that those anticompetitive effects could help explain longstanding economics puzzles, including executive compensation methods that inefficiently reward executives for industry performance, the historic increase in the gap between corporate profits and investment, and the recent rise in economic inequality.[2] I also showed that when horizontal shareholding has likely anticompetitive effects, it can be remedied under Clayton Act §7.[3] I recommended that antitrust agencies should investigate any horizontal stock acquisitions that have resulted or would result in an ΔMHHI (a measure of horizontal shareholding levels) that exceeds 200 and an MHHI (a measure of product market concentration level with horizontal shareholding) that exceeds 2500, in order to determine whether those horizontal stock acquisitions raised prices or were likely to do so.[4]

2. In this paper, I aim to do four things. First, I clarify the distinction between horizontal shareholding and common shareholding or cross shareholding, emphasizing that the latter include non-horizontal forms of common or cross shareholdings that raise quite different issues. Second, I update my analysis to consider scholarship since my article, showing that it strongly confirms my initial economic and legal conclusions. Third, I extend my prior legal analysis to detail why horizontal shareholding can also be condemned under Sherman Act §1 when it has anticompetitive effects. The very name of the legal field – anti*trust* law – comes from the fact that the Sherman Act aimed to prohibit certain trusts that were in fact horizontal shareholders in competing firms. It has thus always been the case that horizontal shareholding by a common shareholder constitutes a horizontal agreement between the competitors. Fourth, I extend my legal analysis to consider the extent to which EU competition law can also tackle horizontal shareholding. As I show, although EU merger control law is narrower than Clayton Act §7, EU law's prohibition of anticompetitive agreements and concerted practices under

[*] Petrie Professor of Law, Harvard Law School. I have investments in Vanguard and Fidelity index funds that have horizontal shareholdings, so my financial interests run contrary both to my empirical conclusion that horizontal shareholding has had anticompetitive effects in some markets and to my legal conclusion that horizontal shareholding can and should be remedied by competition law when such anticompetitive effects are proven. I am grateful for helpful comments from José Azar, Doug Melamed, Martin Schmalz, and Anna Tzanaki.

[1] Elhauge, *Horizontal Shareholding*, 129 HARVARD LAW REVIEW 1267, 1267-78 (2016), https://ssrn.com/abstract=2632024.

[2] *Id.* at 1278-1301.

[3] *Id.* at 1301-1316.

[4] *Id.* at 1303.

TFEU Article 101 is at least as broad as Sherman Act §1's prohibition of anticompetitive agreements. Even broader is EU law on collective dominance and excessive pricing under TFEU Article 102, which provides a straightforward solution to the problem of horizontal shareholding.

1. Horizontal Shareholding v. Common or Cross Shareholding

3. Horizontal shareholding exists when the leading shareholders of horizontal competitors overlap. Although horizontal shareholding is often imprecisely called "common ownership," in fact common ownership can also exist when shareholders own stock in two *non*competing corporations, so horizontal shareholding is actually a subset of common ownership. Some have argued that common ownership in noncompeting corporations might induce those firms not to enter into each other's markets, thus having the anticompetitive effect of eliminating potential competition.[5] One could also argue that common ownership between vertically-related firms might induce one of those firms not to deal with rivals of the other, thus raising foreclosure effects similar to vertical mergers.[6] These are interesting possibilities, but it is good to be precise about what one is analyzing. After all, when we analyze mergers, we carefully distinguish horizontal mergers from vertical mergers and from conglomerate mergers that might eliminate potential competition.[7] We do not simply ask whether mergers in general have anticompetitive effects. My economic and legal analysis, and the rigorous economic modeling and empirical evidence on which I rely,[8] has all been limited to horizontal shareholding, and thus does not address the possible economic effects or legal implications of common ownership that might be vertical or conglomerate.

4. Horizontal shareholding also differs from cross shareholding, which describes situations when firms have minority shareholdings in each other. Like common shareholding, cross shareholding need not be between competitors. Vertical cross shareholdings have in fact sometimes been condemned out of foreclosure concerns.[9] Conglomerate cross shareholdings might also have anticompetitive effects if they discourage potential horizontal competition.[10] But horizontal cross shareholding (i.e., when a firm owns shares in a horizontal competitor) is effectively a special case of horizontal shareholding. Horizontal shareholding addresses the general phenomenon

[5] Jonathan B. Baker, *Overlapping Financial Investor Ownership, Market Power, and Antitrust Enforcement: My Qualified Agreement with Professor Elhauge*, 129 HARVARD L. REV. FORUM 212, 226 (2016).

[6] *Cf.* United States v. E.I. du Pont de Nemours & Co., 353 U.S. 586 (1957) (condemning one firm's minority shareholding in another firm because of such foreclosure concerns).

[7] *See* ELHAUGE & GERADIN, GLOBAL ANTITRUST LAW & ECONOMICS Chapter 7 (2d ed. Foundation Press 2011) (showing how legal and economic analysis of horizontal mergers differs from analysis of vertical and conglomerate mergers under U.S. and EU competition laws).

[8] *See* Elhauge, *The Growing Problem of Horizontal Shareholding*, 3 ANTITRUST CHRONICLE 1, 1-10 (June 2017), https://ssrn.com/abstract=2988281 (summarizing economic models and empirical evidence that is all in fact limited to horizontal shareholding, even though much of it loosely describes what it is addressing as "common ownership")

[9] *See* United States v. E.I. du Pont de Nemours & Co., 353 U.S. 586 (1957).

[10] Areeda & Hovenkamp, Antitrust Law ¶¶ 1203c (Sept. 2017).

when a leading investor had an X% interest in firm A and Y% interest in competing firm B. Horizontal cross-shareholding is just the special case when the investor *is* firm A (and thus has 100% interest in firm A) as well as a Y% interest in competing firm B. The ΔMHHI and MHHI measures used to calculate the level of horizontal shareholding and market concentration can be generalized into ΔGHHI and GHHI measures when there is a mix of horizontal shareholding and horizontal cross-shareholding.[11] In such cases, my recommendation would accordingly be to investigate markets in which the ΔGHHI exceeded 200 and the GHHI exceeded 2500, in order to determine whether the combination of horizontal and cross shareholding likely raised prices.

2. An Update on Recent Scholarship

2.1. U.S. Law on Stock Acquisitions.

5. My argument that Clayton Act §7 bans any horizontal shareholding proven to have anticompetitive effects was straightforward.[12] Clayton Act §7 prohibits stock acquisitions that may substantially lessen competition. Thus, the stock acquisitions that create horizontal shareholdings are illegal whenever those horizontal shareholdings are shown to have created actual or likely anticompetitive effects. As I showed, the solely-for-investment "exception" is no obstacle for two reasons. First, a stock acquisition can be solely for investment only if the investor does not vote or otherwise influence corporate behavior at all, which is rarely the case for leading horizontal shareholders.[13] Second, even if a stock acquisition were solely for investment, that does not really create an exception, but rather merely changes the standard of proof from "may" substantially lessen competition to instead require evidence that the stock acquisition was intended to have anticompetitive effects or actually has or likely would have anticompetitive effects.[14] Because my recommendation was to bring enforcement actions when horizontal stock acquisitions were shown to have actually raised prices or be likely to do so, any such change in the standard of proof would not provide any obstacle.

[11] Elhauge, *supra* note 1, at 1277 n.48.

[12] *Id.* at 1302-04.

[13] *Id.* at 1305-1307.

[14] *Id.* at 1305, 1307-09. The OECD background note seems to suggest that jurisdiction under Clayton Act § 7 is limited to acquisitions of more than 10% of a corporation's voting stock. DAF/COMP(2017)10 at 8 (Oct. 30, 2017). If such a suggestion was intended, it would be incorrect. U.S. law is rather than an acquirer of less than 10% need not *notify* the agencies in advance *if* the acquisition is solely for investment. Elhauge, *supra* note 1, at 1310. If the investment is not passive, then an acquirer of less than 10% must still notify the agencies. *Id.* at 1310-11. Further, under U.S. law, an exemption from advance notification does not eliminate substantive jurisdiction over a stock acquisition. Thus, even when stock acquisitions below 10% are sufficiently passive to be exempt from notification, they are still illegal if they are likely to substantially lessen competition or have actually created such anticompetitive effects. *Id.* at 1305-10. The notification exemption for passive sub-10% investments thus poses no obstacle to challenging horizontal shareholdings by passive institutional investors that each are individually below 10% if their horizontal shareholdings collectively have substantially lessened competition or are likely to do so.

6. Since then, the legal literature has gotten only stronger in support of my analysis. The Areeda-Hovenkamp antitrust law treatise now concurs with my conclusion that Clayton Act §7 condemns any stock acquisitions that create horizontal shareholdings that have actual or likely anticompetitive effects, notwithstanding the so-called solely-for-investment "exception."[15] To be sure, the treatise's reasoning is somewhat different, but it comes to the same destination. The treatise reasons that whether a stock acquisition is made solely for investment is determined under an objective intent standard. Accordingly, the treatise concludes, whenever a horizontal stock acquisition has likely anticompetitive effects, the acquirer must have objectively intended those anticompetitive effects and thus could not be making the acquisition *solely* for investment.[16] Further, the treatise concludes, even when anticompetitive effects were not likely at the time of a stock acquisition, if actual anticompetitive effects later ensue (e.g., because of subsequent horizontal stock acquisitions), then the initial stock acquisition falls outside the solely-for-investment exception because the receipt of anticompetitive benefits means that the investor is "using" the stock "by voting or otherwise" to substantially lessen competition, making it illegal to continue to hold the stock.[17] We thus both reach the same legal conclusion that horizontal stock acquisitions are illegal whenever they are shown to create horizontal shareholding levels that create actual or likely anticompetitive effects.

7. Posner, Morton, and Weyl have raised the administrability concern that my approach means the legality of one horizontal stock acquisition can turn on the existence of other, often later, horizontal stock acquisitions.[18] However, as I have pointed out, the Areeda-Hovenkamp treatise explicitly recognizes the validity of this approach, and it is the traditional approach used when anticompetitive effects turn on the collective effect of restraints of trade imposed by multiple suppliers.[19] The underlying economic reality is that the anticompetitive effects of horizontal shareholdings turn on the collective impact of multiple horizontal stock acquisitions. Sensible legal regulation should thus take into account the fact that the competitive effects of one shareholder's horizontal stock acquisitions depend on the horizontal stock acquisitions of others. It is probably for this reason that the Posner-Morton-Weyl proposal itself ultimately makes the legality of individual horizontal stock acquisitions turn on the existence of others.[20] At least one of the authors of Posner-Morton-Weyl also now agrees that (1) when the cumulation of horizontal stock acquisitions from multiple institutional investors creates the relevant anticompetitive harm, the investors should all be sued rather than focusing on the more

[15] Areeda & Hovenkamp, *supra* note 10, ¶¶ 1203c, 1204b.

[16] *Id.*; *see also* Golden Grain Macaroni Co., 78 F.T.C. 63, 172 (1971), modified on other grounds, 472 F.2d 882 (9th Cir. 1972); Gulf & Western Indus. v. Great Atlantic & Pacific Tea Col, 476 F.2d 687, 693 (2d Cir. 1973); Morton & Hovenkamp, *Horizontal Shareholding and Antitrust Policy* at 16 (November 15, 2017), forthcoming YALE L.J., https://ssrn.com/abstract=3046203.

[17] Areeda & Hovenkamp, *supra* note 10, ¶ 1204e.

[18] Posner, Scott Morton, & Weyl, *A Proposal to Limit the Anti-Competitive Power of Institutional Investors* at 9, 20-21 (March 22, 2017), forthcoming ANTITRUST L.J., https://ssrn.com/abstract=2872754.

[19] Elhauge, *supra* note 8, at 13; Areeda & Hovenkamp, *supra* note 10, ¶¶ 1203e, 1204.

[20] Elhauge, *supra* note 8, at 13.

recent stock acquisitions; and (2) the legality of stock acquisitions (including horizontal shareholdings) depends on their effects at the time of trial, not the time of acquisition.[21]

8. After all, U.S. antitrust law is crystal clear that an initially legal stock acquisition becomes illegal if subsequent events mean that continuing to hold the stock would have anticompetitive effects. As the U.S. Supreme Court stressed in *ITT Continental Baking*:

> *We need not go beyond the Clayton Act itself to conclude that 'acquisition' as used in § 7 of the Act means holding as well as obtaining assets. ... Thus, the framers of the Act did not regard the terms 'acquire' and 'acquisition' as unambiguously banning only the initial transaction of acquisition; rather, they read the ban against 'acquisition' to include a ban against holding certain assets…. '[A]cquisition' can mean, and in the context of § 7 of the Clayton Act does mean, both the purchase of rights in another company and the retention of those rights… [T]here is a violation 'any time when the acquisition threatens to ripen into a prohibited effect.' ... Thus, there can be a violation at some later time even if there was clearly no violation—no realistic threat of restraint of commerce or creation of a monopoly—at the time of the initial acts of acquisition. Clearly, this result can obtain only because 'acquisition' under § 7 is not a discrete transaction but a status which continues until the transaction is undone.*[22]

Indeed, in *du Pont*, the U.S. Supreme Court condemned minority stock acquisitions that were initially viewed as benign based on anticompetitive effects that arose nearly 40 years after the stock was acquired.[23]

9. Administrability concerns have also been overblown based on an implicit premise that my approach would automatically make horizontal shareholding illegal whenever MHHI exceeds 2500 and ΔMHHI exceeds 200. It wouldn't. Such levels of horizontal shareholding and market concentration would under my analysis instead simply trigger investigation to determine whether, in fact, those horizontal stock acquisitions had raised prices or were likely to do so.[24] Proving that those price effects would "substantially" lessen competition has always been understood to include some showing that the price effects would persist or had persisted over some significant period of time. Indeed, the very SSNIP test used to define markets in order to infer anticompetitive effects from a Clayton Act acquisition depends on the pricing power being "non-transitory."[25] Likewise, market power had always been understood to require some showing that the power to raise prices is durable rather than temporary.[26] Further, as a practical matter, proving anticompetitive effects from past horizontal stock acquisitions will usually be possible only when those horizontal shareholdings were sustained for long enough to be able to

[21] Morton & Hovenkamp, *supra* note 16, at 12, 18-21.

[22] United States v. ITT Continental Baking Co., 420 U.S. 223, 240-242 (1975)

[23] United States v. E.I. du Pont de Nemours & Co., 353 U.S. 586. 588-589, 592, 597-598 (1957).

[24] Elhauge, *supra* note 1, at 1303.

[25] U.S. DOJ-FTC, Horizontal Merger Guidelines § 4.1.1 (2010).

[26] Reazin v. Blue Cross & Blue Shield of Kan., 899 F.2d 951, 968 (10th Cir. 1990) ("market power, to be meaningful for antitrust purposes, must be durable"); Areeda & Hovenkamp, *supra* note 10, ¶ 501 ("Market power need not trouble the antitrust authorities unless it is both substantial in magnitude and durable.")

statistically measure their price effects.[27] Thus, it is not like horizontal stock acquisitions would shift rapidly from legality to illegality based on subsequent stock transactions and the mechanical application of an MHHI test. Illegality would require horizontal shareholdings that have adverse price effects for some significant time period, giving horizontal stockholders plenty of time to divest themselves of stockholdings that seem likely to contribute to such adverse effects.

10. Professors Rock and Rubinfeld originally critiqued my legal analysis based on their claims that (1) Clayton Act § 7 only prohibits stock acquisitions that confer control and (2) the solely-for-investment exception immunizes an investor whenever it exercises influence through ordinary investor activities like voting their shares or communicating with management.[28] But their first claim conflicts with holdings by the U.S. Supreme Court that "A company need not acquire control of another company in order to violate the Clayton Act," and by the Sixth Circuit that "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."[29] Their second claim conflicts not only with the analysis above about the solely-for-investment "exception", but also with the fact that Clayton Act § 7 expressly states that even stock acquisitions made solely for investment lose any exemption if the acquirer uses the stock "by voting or otherwise" to bring about anticompetitive effects.[30]

11. After I pointed out that both their claims were clearly incorrect,[31] Rock and Rubinfeld acknowledged that they now agree that "a stock acquisition that lessens competition is a prima facie violation of Section 7, whether or not it provides control or influence."[32] They further acknowledged that if they were convinced that horizontal shareholding by institutional investors did have anticompetitive effects, then they would agree that it would be banned by Clayton Act § 7.[33] Their claim that the Clayton Act does not cover horizontal shareholding by institutional investors is thus not really a legal claim that such horizontal shareholding is immunized even when it has anticompetitive effects. It is rather an economic claim that such horizontal shareholding does not actually have such anticompetitive effects. I turn to that claim next, showing that it is strongly refuted by both economic models and empirical evidence.

[27] Indeed, an empirical study of the effects of horizontal shareholding on airline prices indicates that the adverse price effects come only from long-holding horizontal shareholders, with short-holding horizontal shareholders having no significant effect on prices. Azar, Schmalz & Tecu, Anti-Competitive Effects of Common Ownership at 26 & Table 7 (May 16, 2017), forthcoming JOURNAL OF FINANCE, https://ssrn.com/abstract=2427345.

[28] Rock & Rubinfeld, *Defusing the Antitrust Threat to Institutional Investor Involvement in Corporate Governance* at 18-24 (March 1, 2017), https://ssrn.com/abstract=2925855 .

[29] Denver & Rio Grande W. R.R. v. United States, 387 U.S. 485, 501 (1967); United States v. Dairy Farmers of Am., Inc., 426 F.3d 850, 859–60 (6th Cir. 2005); *see also* Areeda & Hovenkamp, *supra* note 10, ¶ 1203.

[30] 15 U.S.C. § 18 (2012).

[31] Elhauge, *supra* note 8, at 10-12.

[32] Rock & Rubinfeld, *Antitrust for Institutional Investors* at 35 (July 2017), https://ssrn.com/abstract=2998296.

[33] *Id.*

2.2. Update on the Economic Literature

2.2.1. The Powerful Economic Proofs and Empirical Evidence that Horizontal Shareholding Can Have Anticompetitive Effects.

12. Economic models have long proved that when profit-maximizing firms are independent (i.e., have no interest in the profits of other firms) and compete by setting output, then the extent to which prices exceed marginal cost will equal the market HHI divided by the market demand elasticity.[34] Professors Bresnahan and Salop proved that when some of the firms were joint ventures in which some competitors had profit and/or control interests, then the extent to which market prices exceed marginal cost will instead depend on a modified HHI (or MHHI) that reflects those horizontal profit and/or control interests in competing firms.[35] O'Brien and Salop later extended the proof to also consider not only joint ventures but also cross shareholdings between firms, and to extend the analysis from markets where firms compete by setting output to differentiated markets where they compete by setting prices.[36] Their proofs showed that in both sorts of markets, the degree to which prices will exceed costs turns on the extent of horizontal profit and influence interests between the firms.

13. Bresnahan, Salop, and O'Brien did not consider the possibility that horizontal shareholders might have profit and influence interests in competing firms. But Azar, Schmalz, and Tecu pointed out that their proof logically extended to such horizontal shareholdings and that one could calculate MHHIs that considered such shareholdings on the common sense assumption that the extent to which firms consider the interests of each shareholder turns on its share of stock relative to other shareholders.[37] They confirmed this economic proof empirically by showing with a 99% level of statistical confidence that in the airline industry higher levels of horizontal shareholding (ΔMHHI) raised prices in markets with HHI levels over 2500.[38] Azar, Raina, and Schmalz further showed that in the banking industry, where there is both significant horizontal and cross shareholding, a GHHI measure that took both into account had a statistically significant adverse effect on bank fees and rates.[39] These industry studies have proven robust to various critiques that I will address below. But before getting bogged down in those critiques, it is worth stressing that there has been no refutation of the economic proof that, if one does adopt the quite reasonable view that the extent to which firms consider the interests of each shareholder turns on its share of stock relative to other shareholders, then higher ΔMHHI and MHHI levels will result in increased prices.

14. Economic modeling since then has gone beyond assuming that the extent to which firms consider the interests of each shareholder turns on its share of stock relative

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[34] *See* CARLTON & PERLOF, MODERN INDUSTRIAL ORGANIZATION 268 (3rd ed. 2000).

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

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

[37] Azar, Schmalz & Tecu, *supra* note 27, at 8.

[38] *Id.*

[39] Azar, Raina & Schmalz, Ultimate Ownership and Bank Competition (July 24, 2016), http://ssrn.com/abstract=2710252.

to other shareholders. New scholarship now mathematically proves that if managers try to maximize either their expected share of votes or their probability of winning re-election, managers will maximize the weighted average of their shareholders' profits from all their stockholdings.[40] If all shareholders have equivalent horizontal holdings across all firms (such as with indexing), then this will lead managers to have each firm price at monopoly levels despite nominal competition.[41] If shareholders have differing holdings, then the weight put on each shareholder will turn on whether managers maximize their expected vote share or their odds of re-election. If managers maximize their expected vote share, shareholders will be weighted proportionally to their voting shares, so increased horizontal shareholding will proportionally increase prices.[42] If managers maximize their probability of re-election, shareholders will be weighted by the odds that the particular shareholder's vote will be pivotal, which gives extra weight to the largest shareholders, who typically are now horizontal shareholders.[43] This proof requires no communication between firms or between managers and shareholders, though shareholder-manager communication can exacerbate the problem by giving more weight to the shareholders who communicate.[44] Unless one thinks managers are not influenced by a desire to increase their re-election vote share or the probability of winning re-election, this economic model mathematically proves that high levels of horizontal shareholding across firms that have collective market power will increase prices.

15. Economic scholarship since then has also strongly confirmed my conclusion that horizontal shareholding can explain why corporations inefficiently reward executives in part for industry performance.[45] Bengt Holmström's Nobel prizewinning work proved that it would be more efficient to base incentive compensation only on the performance of the executive's firm relative to other firms, and that firms would do so if each firm just maximized its own profits.[46] A new mathematical proof shows that increased levels of horizontal shareholding mean that shareholder interests are maximized by executive compensation that increases the weight put on fixed pay and rival-firm performance relative to own-firm performance.[47] Importantly, this proof holds even though uncoordinated competition among the firms is assumed.[48] This proof does not mean that horizontal shareholding will lead to executive compensation based *solely* on industry performance. To the contrary, even if *all* shareholders have parallel horizontal holdings in all firms, then shareholder profits will be maximized by compensating executives *just as much* for their own firm's performance as for rival performance, and that will lead to

[40] José Azar, *Portfolio Diversification, Market Power, and the Theory of the Firm* at 2 & Figure 1 (Jan. 30, 2017), https://ssrn.com/abstract=2811221.

[41] *Id.* at 14-16.

[42] *Id.* at 12-13.

[43] *Id.* at 13-14.

[44] *Id.* at 14.

[45] Elhauge, *supra* note 1, at 1278-1281.

[46] Bengt Holmström, *Moral Hazard in Teams*, 13(2) BELL JOURNAL OF ECONOMICS 324-40 (1982).

[47] Anton et al., *Common Ownership, Competition, and Top Management Incentives* at 4, 14-17 (August 15, 2016), http://ssrn.com/abstract=2802332.

[48] *Id.* at 14-15.

monopoly pricing.[49] Further, the compensation package that is optimal for horizontal shareholders also includes some fixed pay because it reduces executive risk while providing no incentive to favor own-firm profits over rival profits.[50] An updated version of this paper adds a proof that also shows firms with horizontal shareholders will maximize the interests of their shareholders by providing fewer financial incentives for managers to expend effort and reduce costs.[51]

16. This economic model was confirmed with a new empirical study that shows that (just as this proof predicts) in markets with higher horizontal shareholding levels, firms compensate executives "less for their own firm's performance and more for their rival's performance."[52] The statistical confidence level of this finding is over 99%.[53] Also consistent with this proof, higher horizontal shareholding is associated with increased fixed pay and 25% higher total pay.[54] Further, higher horizontal shareholding levels lead corporations to adopt compensation methods that make managerial wealth (including stock and options) less sensitive to their own firm's performance.[55] Likewise, another empirical study found that having a common horizontal shareholder with at least a 5% stake sharply increases the degree to which executive compensation is based on rival stock returns rather than own-firm stock returns.[56] Higher horizontal shareholding levels thus lead to compensation methods that give managers direct incentives to lessen competition, without requiring any shareholder communications on competitive strategy.

17. Finally, new economics scholarship also strongly confirms my conclusions that horizontal shareholding can explain the historic increase in the gap between corporate profits and investment and help explain the recent rise in economic inequality.[57] This new literature shows that we had a sharp rise in horizontal shareholding from 1999 to 2014, with the probability of two competing firms in the S&P 1500 having a large horizontal shareholder increasing from 16% to 90% over that period.[58] This sharp rise in horizontal shareholding coincides with the fact that the recent large divergence between corporate profits and investment began in 2000.[59] It also coincides with the period during which we

[49] *Id.* at 14.

[50] *Id.* at 1, 4, 16-17.

[51] Anton et al., *Common Ownership, Competition, and Top Management Incentives* at 3, 9-14 (Oct. 19, 2017), http://ssrn.com/abstract=2802332.

[52] Anton et al., supra note 47, at 1, 5-6, 26-28, Table 4.

[53] *Id.* at Table 4.

[54] *Id.* at 5, 28-29.

[55] Anton et al., *supra* note 51, at 3-4, 20-22.

[56] Lantian (Max) Liang, *Common Ownership and Executive Compensation* (October 2016). A study by Kwon found the contrary, but that appears to reflect errors in MHHI calculations and a failure to account for wealth-based compensation like grants of stock or options. *See* Elhauge, *supra* note 8, at 3-4.

[57] Elhauge, *supra* note 1, at 1281-1301.

[58] Azar, *supra* note 40, at 2 & Figure 1.

[59] Germán Gutiérrez & Thomas Philippon, *Investment-Less Growth: An Empirical Investigation* a 2, 5-11 (December 2016), http://www.nber.org/papers/w22897.

have had the highest growth in corporate profits and greatest decline in labor's share of national income since World War II.[60]

18. Standing alone, such evidence could be a coincidence and reflect economic factors other than horizontal shareholding that changed during the same time period. But a new cross-industry empirical study has directly found that the gap between corporate investment and profitability is driven by the level of horizontal shareholder ownership in concentrated markets.[61] Further, it found that within any industry, the investment-profit gap is driven by those firms with high horizontal shareholding levels.[62] This new empirical evidence now affirmatively establishes a link between anticompetitive horizontal shareholding and the economy wide lack of corporate investment that has contributed to low economic growth in recent decades.

19. This new empirical evidence also indicates that the driving cause of the investment-profit gap cannot be general macroeconomic, technological, or policy trends, such as recessions, increased automation, decreased productivity, a slowdown in technological innovation, or government spending, taxes, or labor law changes. If such general trends were the cause, they should result in a profit-investment gap across the economy. Such general trends cannot explain why the gap is instead driven by concentrated markets with high horizontal shareholdings. Even less can such general trends explain why, within any industry, the investment-profit gap is driven by firms with high horizontal shareholding levels. If automation, technological factors, or government policies were driving low investment, that should apply to all firms in an industry, not just to those firms with high levels of horizontal shareholding.

20. Although this new cross-industry study does not directly examine economic inequality, its proof of an empirical connection between horizontal shareholding in concentrated markets and a gap between high corporate profits and low corporate investment logically indicates a connection to economic inequality. The reason is that those high corporate profits go to shareholders who are disproportionately wealthy and reflect high prices that are disproportionately borne by the non-wealthy, and the lack of corporate investment depresses employment and wages in a way that also disproportionately harms the non-wealthy.[63]

2.2.2. The Airline Study Has Proven Robust to All Critiques.

21. The Investment Company Institute, an association of institutional investors that for the preceding three years was headed by the CEO of Vanguard, has funded a couple of papers to critique the empirical study showing an adverse link between horizontal shareholding and airline prices.[64] The airline study has also been critiqued by Professors Rock and Rubinfeld, who both have significant experience in the airline industry because they consulted either for the airlines or the DOJ on the airline mergers that were approved

[60] Azar, *supra* note 40, at 2 & Figure 2.

[61] Gutiérrez & Philippon, *supra* note 59, at 3-4, 29-35.

[62] *Id.* at 4, 32-35.

[63] Elhauge, *supra* note 1, at 1292-97.

[64] O'Brien & Waehrer, *The Competitive Effects of Common Ownership: We Know Less than We Think* at n.1 (Feb. 22, 2017), https://ssrn.com/abstract=2922677; Kennedy, et al, *The Competitive Effects of Common Ownership: Economic Foundations and Empirical Evidence* at n.* (July 2017), https://ssrn.com/abstract=3008331; https://www.ici.org/about_ici/annuals.

notwithstanding high levels of horizontal shareholding.[65] I think this is all to the good because it means that the results of the airline study have now been pressure tested by well-funded, highly-motivated, and extremely skilled experts, whom we can be confident would have discovered any flaws in that study. Instead, the airline study has survived with flying colors because the critiques have all turned out to either be misguided or cut in the opposite direction, and the study has now been accepted by the leading peer-reviewed journal in the field, the Journal of Finance.

22. The critiques offered two valid points. First, Rock and Rubinfeld critiqued the airline paper for defining route markets by airport pairs, rather than by city pairs.[66] This is a good point. Competition for flights between LaGuardia and San Francisco are likely restrained by flights between any of LaGuardia, JFK, and Newark and San Francisco or Oakland. But modifying the airline study to use city pairs actually makes the harmful price effects *larger*.[67] In response, Rock and Rubinfeld now say this issue is likely "minor".[68] But actually it is quite telling that increases in accuracy increase the measured effect because that is just what one would predict if the effect were real.

23. Second, the first Investment Company Institute study pointed out that although the part of the airline study that analyzed the effects of BlackRock's merger with Barclay's Global Investors controlled for any possible endogenous effect on MHHI, it neglected to do so for HHI as well.[69] Another good point. But when the revised airline study controlled for any endogenous effect on HHI by using pre-period measures of HHI, the result was again an even *larger* price effect, here of 10-12%.[70] Again, it is telling that increases in accuracy increase the measured effect.

24. Other critiques were misguided. The first Investment Company Institute study, echoed by Rock and Rubinfeld, argued that the correlation between ΔMHHI and prices might be driven by increased demand on certain routes increasing both ΔMHHI and prices.[71] But there are four fatal problems with this theory. First, the just mentioned BlackRock-Barclays study already used an instrumental variable that controlled for any endogenous effect, and found larger price effects than in the direct regression. Second, the critics' theory conflicts with the fact that the airline study showed that ΔMHHI not only increased prices, but also *decreased* output, the opposite of what would occur if the price increase were driven by a demand increase.[72] Third, if price increases were causing increases in ΔMHHI, rather than vice versa, then higher prices should be correlated with later increases in ΔMHHI. An additional test showed they are not, whereas increases in ΔMHHI are correlated with later increases in prices.[73] Fourth, if price changes were causing changes in market share that changed ΔMHHI, then they should correlate even if

[65] Rock & Rubinfeld, *supra* note 28, at n.*; Rock & Rubinfeld, *supra* note 32, at n.*.

[66] Rock & Rubinfeld, *supra* note 28, at 12.

[67] Azar, Schmalz & Tecu, *supra* note 27, at 17 & Table 4.

[68] Rock & Rubinfeld, *supra* note 32, at 22.

[69] O'Brien & Waehrer, *supra* note 64, at 25-26 & Table 7.

[70] Azar, Schmalz & Tecu, *supra* note 27, at 3-4, 38 & Table 6.

[71] O'Brien & Waehrer, *supra* note 64, at 15-18, 23-25; Rock & Rubinfeld, *supra* note 28, at 13.

[72] Azar, Schmalz & Tecu, *supra* note 27, at 3, 23-24 & Table C.4.

[73] *Id.* at 18 & Table 5.

one measured ΔMHHI using only smaller or short-term shareholders unlikely to exert influence. But additional tests show there is no such correlation and that instead the correlation between prices and ΔMHHI is driven almost entirely by the large long-term shareholders that are likely to exert influence over corporate decision making.[74]

25. Rock and Rubinfeld also offered a hodgepodge of other critiques. They argued that prices might be lower in routes with lower ΔMHHI because of the presence of low-cost carriers like Southwest.[75] But the airline study controlled for the presence of Southwest or other low-cost carriers.[76] Rock and Rubinfeld also argued that the Delta-Northwest merger might be a confounding event,[77] but the original airline study controlled for this merger and the revised version added further controls for it.[78] Rock and Rubinfeld further argued that the results might be affected by changes in fuel costs or differences in route size,[79] but the airline study already used fixed effects that controlled for changes in fuel costs and route characteristics.[80] The revised airline study adds controls for the possibility that fuel costs might have different effects in routes with longer distances, and that change also made the adverse price effects even *larger*.[81]

26. In response, Rock and Rubinfeld acknowledge that the above factors and controls reduce their concerns, but assert without explanation that they do not "fully resolve" those concerns.[82] The Investment Company Institute has responded by funding a second critique of the airline study. This second critique first reconstructs the data from scratch and replicates the results of the airline study, confirming that the results of that study are not an artifact of any data errors.[83] Then the second critique modifies the airline study in various ways.

27. First, the new critique re-runs the airline study's main regression of prices on horizontal shareholding levels, but replacing actual MHHI and ΔMHHI with the new critique's own construction of horizontal shareholder incentive terms.[84] This modification confirms the results of the original airline study, finding that horizontal shareholding increases prices in a statistically significant way.[85]

28. Second, the new critique re-runs the BlackRock-Barclays instrumental variable regression, but it changes the instruments to a dummy variable if the market was affected by the BlackRock-Barclays merger at all and the number of airlines in each market that

[74] *Id.* at 4, 24-25 & Tables C.5-C.6.

[75] Rock & Rubinfeld, *supra* note 28, at 13-14.

[76] Azar, Schmalz & Tecu, *supra* note 27, at 14-15, Tables 3-7, Table C1-C3.

[77] Rock & Rubinfeld, *supra* note 28, at 13.

[78] Azar, Schmalz & Tecu, *supra* note 27, at 21-22.

[79] Rock & Rubinfeld, *supra* note 28, at 13.

[80] Azar, Schmalz & Tecu, *supra* note 27, at 3.

[81] *Id.* at 14-15 & Tables 3-7.

[82] Rock & Rubinfeld, *supra* note 32, at 20 n.53, 21, 23.

[83] Kennedy, et al, *supra* note 64, at 10-14.

[84] *Id.* at 14-15.

[85] *Id.* at 16.

are included in the Russell 1000 index.[86] The first change in instruments means that much of the modified study now compares routes unaffected by the merger to routes with trivial effects, which naturally reduces the measured effect and statistical power. Further the combination of modifications results in the implausible finding that horizontal shareholding has a large *negative* effect on prices.[87] This finding is implausible because, even if one did not think horizontal shareholding raised prices, there is no tenable explanation for why it would decrease prices. This implausible finding seems to reflect a flaw in the modified instruments, because the new critique's first stage results indicate that the merger of Barclays and BGI somehow had a significant *negative* effect on horizontal shareholding levels, which is impossible given that the merger clearly combined horizontal shareholders.[88] In short, the new critique apparently reaches a negative relation between horizontal shareholding and price because its uses a flawed instrument that was negatively related to actual horizontal shareholding.

29. Third, the new critique creates its own model of market demand and supply and estimate results using its own measure of horizontal shareholding.[89] This modification finds no statistically significant link between horizontal shareholding and prices, but its attempt to reconstruct market demand and supply is clearly erroneous since it finds that longer routes have *lower* marginal costs, which contradicts the physical reality that it takes more fuel to fly longer distances.[90] Also, this modification only uses one tenth of the actual data, which makes it far less likely to find an effect.[91]

2.2.3. Stepping Back.

30. The airline study has thus proven robust to all critiques. It is also worth taking a step back from the technical back and forth about the airline study to note that none of these critiques respond in any way to the economic models that prove that horizontal shareholding increases prices if one thinks either that larger shareholders have more influence or that managers maximize either their vote share or their odds of re-election. Given those economic proofs, it would take powerful empirical evidence to establish that such price effects did *not* exist. Certainly none of the claimed critiques of the airline study provide any such powerful showing.[92]

[86] *Id.* at 15.

[87] *Id.* at 16.

[88] *Id.* at Table 6; Azar, Schmalz, and Tecu, *The Competitive Effects of Common Ownership: Economic Foundations and Empirical Evidence: Reply* at 4 (September 28, 2017), https://ssrn.com/abstract=3044908.

[89] Kennedy, et al, *supra* note 64, at 5, 16-22.

[90] *Id.* at 22; Azar, Schmalz, and Tecu, *supra* note 88, at 3, 5.

[91] Kennedy, et al, *supra* note 64, at 20-21; Azar, Schmalz, and Tecu, *supra* note 88, at 3-5.

[92] Nor does a recent effort to modify the banking study by excluding the market share components of MHHI. Gramlich & Grundl, *Testing for Competitive Effects of Common Ownership* at 7-8 (April 21, 2017), https://www.federalreserve.gov/econres/feds/files/2017029pap.pdf. As I have pointed out, the problem is that their measure is far less relevant to anticompetitive effects, which depend not only on the level of horizontal shareholding, but also on firm market shares. Elhauge, *supra* note 8, at 8-9. It also appears that their data on horizontal shareholding simply used 13F filings, Gramlich & Grundl, *supra*, at 8, without correcting their well-known inaccuracies by cross-checking against other sources, Azar, Schmalz & Tecu, *supra* note 27, at 10 n.7. Either their

31. Nor do any of these critiques of the airline study rebut in any way either (a) the economic model proving that corporations maximize the interests of their shareholders with executive compensation that puts increased weight put on rival-firm performance the greater the horizontal shareholding level or (b) the cross-industry empirical evidence that this is precisely what corporations do, which naturally incentivizes executives to compete less when horizontal shareholding levels are higher.[93] These critiques of the airline study also offer no rebuttal to the cross-industry study showing that the investment-profit gap is driven by horizontal shareholding in concentrated markets and by the firms in those markets that have high levels of horizontal shareholding.[94] These cross-industry studies conflict with any conclusion that horizontal shareholding in concentrated markets is not adversely affecting competition.

32. Taking an even larger step back, the critics are effectively claiming that firm managers are entirely unaffected in their competitive decisions when their leading shareholders derive profits (often more profits) from the firm's rivals.[95] This claim is quite implausible. If the political boundaries of the United States were redrawn to include Canada, no one would doubt for an instant that this would make U.S. Presidents much more attentive to the interests of Canadians, even though voters would have diverging interests and not be voting on specific Presidential decisions. And in political situations, the only source of accountability is voting by individuals on who to elect to office. For corporations, the sources of accountability include not only voting by large institutional investors (which each have a much higher share of the vote than political voters) on elections and many specific corporate decisions, but also executive compensation incentives, takeovers, control contests, labor markets, and direct communications.[96] It would be remarkable if those methods of accountability did not make firm managers pay attention to the profit interests of their leading shareholders, which clearly change when those leading shareholders are also leading shareholders in the firm's competitors.

3. Tackling Horizontal Shareholding under the Sherman Act

33. In my initial article, I briefly noted that when horizontal shareholding has anticompetitive effects, it could also be condemned under Sherman Act § 1 on the theory

use of a less relevant measure or their use of less reliable data could explain why they find smaller and more mixed effects.

[93] *See supra* Part 2.2.1.

[94] *See supra* Part 2.2.1.

[95] Or they are claiming that the interests of horizontal shareholders in anti-competitively increasing industry profits are totally negated by their interests in avoiding anticompetitive harm to suppliers or customers of that industry in which the horizontal shareholders might also be invested. Rock & Rubinfeld, *supra* note 32, at 15. But that hypothesis is implausible because a large share of anticompetitive effects will necessarily be visited on non-corporate suppliers and purchasers, and even if corporate purchasers pay more they are likely to pass most of the overcharge on to downstream consumers. Elhauge, *supra* note 8, at 12-13. Further, that hypothesis conflicts not only with the results of the airline and banking studies, but also with the cross-industry empirical studies showing that horizontal shareholding leads to less efficient executive compensation and a greater investment-profit gap.

[96] Elhauge, *supra* note 8, at 2-6; Easterbrook, *Managers' Discretion and Investors' Welfare: Theories and Evidence*, 9 DEL. J. CORP. L. 540, 543 (1984).

that holding shares in horizontal competitors is a combination or agreement that restrained competition.[97] But I did not elaborate the point. I now extend my legal analysis to do so.

34. Sherman Act § 1 applies to any "contract, combination in the form of trust or otherwise, or conspiracy" that imposes a net restraint on competition.[98] The "contract" element is clearly met because horizontal shareholding involves formal contracts between corporations and common investor. Those contracts are what give horizontal shareholders rights to vote for corporate management and a share of corporate profits. Of course, shareholder-corporate contracts ordinarily do not restrain competition. But they are contracts that clearly meet the statute's agreement requirement. Further, if shareholder-corporate contracts between horizontal shareholders and competing corporations do incentivize those corporations to behave less competitively, they impose a net restraint on competition. Thus, whenever horizontal shareholdings have anticompetitive effects, they constitute contracts in restraint of trade that violate Sherman Act § 1.

35. This conclusion holds even though each individual shareholder-corporate contract would not, standing alone, restrain competition. It suffices that the horizontal shareholders have contracts with competing firms and that the effect of the voting and profit rights in those contracts is to lessen competition between those firms. Antitrust has long judged the anticompetitive effects of multiple contracts based on their aggregate impact, such as when it judges exclusive dealing contracts based on cumulative foreclosure or vertical price-fixing contracts based on whether they are sufficiently widespread to facilitate oligopolistic coordination.[99]

36. Indeed, the reason that the Sherman Act was called an anti*trust* law was that it aimed to prohibit trusts that in fact were horizontal shareholders. These pre-Sherman Act trusts were formed by having the stockholders of the competing firms transfer their stock to the trust, in exchange for a trust certificate entitling each stockholder to a share of the trust's income.[100] The trusts then used their horizontal shareholdings to elect directors of each firm that would refrain from competition. The firms paid their profits as dividends to the trust, which then distributed those profits to the holders of trust certificates. The shareholder-corporate contract between the trust and each individual corporation did not, standing alone, restrain competition. But because the trust was a horizontal shareholder that had such contracts with competing corporations, those contracts did restrain competition. The same is true when institutional investors are the horizontal shareholders that have shareholder-corporate contracts with competing corporations.

37. The statute also applies to any "combination in the form of trust or otherwise." This text clearly indicates that the statute deems trusts one form of "combination" between the competing firms. It does so even though the only thing combining the firms is the fact that their shareholder rights are held by a common horizontal investor, namely the trust. Accordingly, when a common set of institutional investors are leading

[97] Elhauge, *supra* note 1, at 1304.

[98] 15 U.S.C. § 1; EINER R. ELHAUGE, UNITED STATES ANTITRUST LAW AND ECONOMICS 49-50 (2d ed. 2011).

[99] FTC v. Motion Picture Advertising Service, 344 U.S. 392 (1953); Leegin Creative Leather Products v. PSKS, Inc., 551 U.S. 877, 897 (2007); ELHAUGE, *supra* note 98, at 343-46.

[100] Sherman Anti-Trust Act (1890), available at https://www.ourdocuments.gov/print_friendly.php?flash=true&page=&doc=51&title=Sherman+Anti-Trust+Act+%281890%29

shareholders at competing firms, their horizontal shareholdings also create a combination between those firms that makes the Act applicable. Indeed, many ETFs with horizontal shareholdings are literally trusts.

38. One might mistakenly think that, although horizontal shareholdings meet the contract or combination requirement, they would not constitute anticompetitive restraints of trade unless they also exercised control and specified particular firm prices or conduct. But that does not follow. Although the pre-Sherman Act trusts did tend to engage in that level of anticompetitive micromanagement, the statute banned trusts whether they did so or not. Such specific control is not required for an anticompetitive restraint. For example, agreements to exchange certain sorts of information or engage in other practices that facilitate oligopolistic coordination have long been illegal, even though they do not control or specify any particular price.[101]

39. Nor is it necessary that the agreement either specify or coordinate prices, as long as the agreement has some other anticompetitive effect, such as diminishing incentives to compete. Consider the following hypothetical. Suppose competing firms both contracted with a third entity, let's call it the competition referee. Under each of their separate contracts with the referee, each firm agrees that if it takes a sale away from another firm that contracts with the referee, then the firm's owners must pay a fine to the referee. In exchange, the referee agrees that if a sale is taken away from the first firm, the referee will pay the firm's owners the fine paid by the owners of the firm that took away that sale. The referee would not control either firm nor specify any particular price that either should charge. But there is no doubt that this creates a horizontal agreement that discourages and thus restrains ordinary competitive behavior and would thus be covered by Sherman Act § 1.

40. Horizontal shareholdings have the same restraining effect as my referee contracts, because they mean that firms acting on behalf of their shareholders will realize that, when they take away sales from a rival firm, their owners effectively pay a fine equal to the profits that those horizontally-invested owners lose on the rival firm when it loses a sale.[102] This will restrain the incentives of both firms to compete, even if their managers never discuss specific prices or conduct with each other.

41. To be sure, horizontal shareholdings by institutional investors do differ from pre-Sherman Act trusts and my referee contracts in one important respect. Namely, those trusts and referee contracts involve horizontal agreements with no plausible procompetitive justification, and thus are illegal per se. In contrast, horizontal shareholdings by institutional investors do provide investment capital and diversification benefits, and thus they should be reviewed under the rule of reason, rather than condemned per se. To be sure, under the rule of reason, such procompetitive efficiencies are unlikely to justify otherwise anticompetitive horizontal shareholding. After all, non-horizontal shareholding can provide the same investment capital and virtually the same diversification benefits, and those diversification benefits to investors have been shown to be small in relation to the anticompetitive harm and anyway cannot legally offset the harm to consumers in the relevant product market.[103] But those potential benefits do

[101] Elhauge, *supra* note 98, at 535, 562-84.

[102] Elhauge, *supra* note 1, at 1269-70.

[103] Elhauge, *supra* note 1, at 1303-04; Morton & Hovenkamp, *supra* note 16, at 13-14; Posner, Scott Morton, & Weyl, *supra* note 18, at II.B & II.E.

suffice to trigger rule-of-reason review, which requires that anticompetitive effects to be established for illegality.

42. In short, even if one thought, wrongly,[104] that horizontal shareholding could not be condemned under Clayton Act § 7 because the stock acquisitions were solely for investment or did not confer control or were too long ago, such horizontal shareholdings still form an ongoing contract or combination that triggers rule of reason review under Sherman Act § 1. Horizontal shareholdings would accordingly violate Sherman Act § 1 whenever they are proven to create anticompetitive effects that are not offset by procompetitive effects to the same product market.

4. Tackling Horizontal Shareholding under EU Competition Law

43. In the EU, concerns have been raised that there may be a regulatory gap that limits the ability of EU competition law to remedy horizontal shareholding, even when it does have significant anticompetitive effects. This perceived gap rests largely on the fact that the EU Merger Regulation is limited to acquisitions that confer control, defined as "the possibility of exercising decisive influence" over business activities,[105] which makes it narrower than Clayton Act § 7, which bans any stock acquisition likely to substantially lessen competition.[106] However, EU competition law is far from impotent to deal with anticompetitive horizontal shareholding. To begin with, the EU merger regulation is not as narrow as it might seem. More important, EU law on agreements and concerted practices is at least as broad as US law on agreements, and thus it can reach the agreements that create horizontal shareholdings whenever they have anticompetitive effects. Further, far broader than US law is EU law on collective dominance and excessive pricing, which provides a natural legal solution to anticompetitive horizontal shareholding that does not require proving any ongoing set of agreements.

4.1. EU Merger Regulation

44. Although the EU merger regulation is narrower than the Clayton Act, it does cover acquisitions that give a set of minority shareholders joint de facto control because of strong common financial interests.[107] This regulation could be interpreted to mean that, if a series of acquisitions gave a set of horizontal shareholders enough shares that they might collectively exercise decisive influence over business activities, perhaps in part because other shareholders are dispersed, then the acquisitions that conferred that potential collective influence are subject to the merger regulation.[108] If (under such an

[104] *See supra* Part 2.1.

[105] DAF/COMP(2017)10 at 43 n.7 (Oct. 30, 2017); Commission Consolidated Jurisdictional Notice under Council Regulation 139/2004 on the control of concentrations between undertakings, [2008] OJ C 95/1, at ¶¶ 7, 16.

[106] *See supra* Part 2.1.

[107] Commission Consolidated Jurisdictional Notice, *supra* note 105, at ¶ 76 ("collective action can occur on a *de facto* basis where strong common interests exist between the minority shareholders").

[108] If an acquisition does confer the necessary change in joint control, then the Commission can order the divestiture of the prior minority shareholdings as well. *See* ANNA TZANAKI, THE REGULATION OF MINORITY SHAREHOLDINGS AND OTHER STRUCTURAL LINKS BETWEEN

interpretation) horizontal stock acquisitions create a potential collective influence sufficient to trigger jurisdiction under the merger regulation, their substantive assessment need not turn on any exercise of control, but rather can be based on anything that might result in anticompetitive effects, including any effect the horizontal shareholdings might have on firm incentives to compete.[109] Thus, if horizontal stock acquisitions potentially give horizontal shareholders a collective decisive influence, those acquisitions could be enjoined based on evidence that the horizontal shareholding would diminish incentives to compete, even if joint control is never actually exercised.[110]

45. To be sure, such an interpretation does face some obstacles. First, the Commission has stated that, "In general, a common interest as financial investors (or creditors) of a company in a return on investment does not constitute a commonality of interests leading to the exercise of de facto joint control."[111] But to state that something "in general" is not the case is to acknowledge that sometimes it *is* the case, and horizontal shareholdings by institutional investors that lead to anticompetitive effects would seem to merit being treated as an exceptional case. Moreover, anticompetitive horizontal shareholdings are not actually covered by this statement, because with such horizontal shareholdings the common interest is not just in a return on investment in "a company", but is rather in anticompetitive profits across multiple competing firms.

46. Second, the Commission has also stated that "the possibility of changing coalitions between minority shareholders will normally exclude the assumption of joint control."[112] But "normally" is not always, and again anticompetitive horizontal shareholdings merit being the exceptional case. Indeed, anticompetitive horizontal shareholdings are probably not covered by the statement, because such anticompetitive effects indicate the existence of a stable coalition among the horizontal shareholders in favor of diminished competition, given the structural incentives created by their shareholdings in other firms.

47. Granted, interpreting EU merger regulation to cover the de facto joint control of horizontal shareholders would require a change in prevailing enforcement practice, because so far the cases finding joint control have involved more direct links between the shareholders. But given the economic proofs and empirical evidence that high levels of horizontal shareholding in concentrated markets often have strong anticompetitive effects,[113] such a change in enforcement practice would be merited. After all, EU competition law has a history of sensibly interpreting its merger regulation to prevent anticompetitive effects rather than leave regulatory gaps. The original merger regulation prohibited only concentrations that created or strengthened a dominant position, thus

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COMPETING UNDERTAKINGS UNDER EU COMPETITION LAW: A LAW & ECONOMICS ANALYSIS 47-48 (2017)(collecting cases).

[109] *Id.* at 49-50, 56-57 (collecting cases).

[110] Commission Consolidated Jurisdictional Notice, *supra* note 105, at ¶ 16 ("Control is defined by Article 3(2) of the Merger Regulation as the possibility of exercising decisive influence on an undertaking. It is therefore not necessary to show that the decisive influence is or will be actually exercised.")

[111] Commission Consolidated Jurisdictional Notice, *supra* note 105, at ¶ 79.

[112] *Id.* ¶ 80.

[113] *See supra* Part 2.2.

seeming to leave unregulated acquisitions that created or strengthened oligopolies.[114] But EU tribunals solved this problem by first concluding that oligopolies constituted a collective dominant position when there were contractual or structural links among the oligopoly firms, and then later extending the concept to oligopolies where no such contractual or structural links existed.[115] Likewise, while current enforcement practice has challenged de facto joint control only in cases where there are some contractual or direct links among the shareholders, a parallel interpretation could easily extent the concept to cases where no such contractual or direct links between the shareholders exist.

48. The best argument to the contrary is that such an interpretation might not be needed to address the problem of anticompetitive horizontal shareholding, because other EU competition laws offer a better solution. After all, even with the above interpretation, EU merger law would be limited to cases where some set of horizontal stock acquisitions could be shown to have changed control by potentially giving the horizontal shareholders decisive joint influence over business activities. Although this will capture some cases of anticompetitive horizontal shareholding, horizontal shareholding can also have anticompetitive effects for structural reasons that do not depend on such collective decisive influence.[116] EU merger law thus cannot remedy all the horizontal shareholdings that have anticompetitive effects. Luckily, Articles 101 and 102 of the Treaty on the Functioning of the European Union (TFEU) can remedy any anticompetitive horizontal shareholding, as I show next.

4.2. EU Law on Anticompetitive Agreements or Concerted Practices

49. TFEU Article 101 prohibits "agreements" or "concerted practices" between undertakings that have the effect of restricting competition. Article 101's ban on anticompetitive "agreements" is just as broad as the Sherman Act's ban on anticompetitive "contracts" or "combinations."[117] As detailed in Part III, such a ban on anticompetitive agreements readily applies to horizontal shareholding because it involves contractual agreements between institutional investors and competing corporations that have anticompetitive effects. The same logic should apply in every other nation with a competition law that bans anticompetitive agreements.

50. Indeed, in *Philip Morris*, the European Court of Justice already specifically held that acquiring a minority stockholding in a corporation is an agreement that can violate TFEU Article 101, even if it appears to be a "passive investment", if the agreement to buy the stock "has the object or effect of influencing the competitive behaviour of the companies on the relevant market."[118] The particular theory of influence raised in that case was that the stock might be voted in a way that would anti-competitively influence the target corporation's actions, on which the Court deferred to the Commission's findings that such anticompetitive influence was unlikely.[119] But that reasoning at a

[114] *See* ELHAUGE & GERADIN, supra note 7, at 918-919, 960.

[115] *Id.* at 960-62.

[116] *See supra* Part 2.2.

[117] *See* ELHAUGE & GERADIN, supra note 7, at Chapter 6 (showing in detail that U.S. and EU competition law cases are quite parallel on what they consider an agreement covered by Sherman Act § 1 or TFEU Article 101).

[118] British American Tobacco v Commission (Philip Morris), [1987] E.C.R. 4487, at ¶ 45.

[119] *Id.* ¶¶ 46-64.

minimum indicated that if voting of the stock were likely to have an anticompetitive influence on corporate behavior, then it would fall within TFEU Article 101. Further, the general statement of the Court was broader, treating the stock acquisition as an agreement that could be illegal whenever it has the "effect of influencing the competitive behaviour of the companies."[120] This language covers any influence the stock might have, including the fact that shareholdings and profit interests might alter the incentives of either company to compete with the other. *Philip Morris* thus allows horizontal shareholdings to be condemned as agreements under TFEU Article 101 whenever those shareholdings have or are likely to have adverse effects on firm competition for any reason.

51. Moreover, TFEU Article 101 extends beyond agreements to also capture "concerted practices".[121] The European Court of Justice has explained that the purpose of this "concerted practices" provision "is to bring within the prohibition of [Article 101] a form of coordination between undertakings which, without having reached the stage where an agreement properly so-called has been concluded, knowingly substitutes practical cooperation between them for the risks of competition".[122] The European Court of Justice has also stressed:

> *"The criteria of coordination […] must be understood in the light of the concept inherent in the provisions of the Treaty relating to competition that each economic operator must determine independently the policy which he intends to adopt on the common market … Although it is correct to say that this requirement of independence does not deprive economic operators of the right to adapt themselves intelligently to the existing and anticipated conduct of their competitors, it does however strictly preclude any direct or indirect contact between such operators, the object or effect whereof is … to influence the conduct on the market of an actual or potential competitor…."*[123]

This concept of concerted practices applies readily to horizontal shareholding, which causes firms to no longer behave independently because they are indirectly linked through their common shareholders in a way that influences their competitive behavior. Such horizontal shareholding thus suffices to create a concerted practice among the competing firms. The same would be true in other nations like China and Taiwan that also ban "concerted action" that has anticompetitive effects.[124]

52. EU case law has also held that when one firm acquires a minority stockholding in a competing firm, that can constitute an abuse of dominance under TFEU Article 102 if one of the firms has a dominant position and the shareholding results "at least in some influence" on a firm's commercial conduct.[125] It has even held that sufficient influence can exist despite a lack of voting rights and the existence of a covenant not to exert any influence on the corporate board, as long as the firm would naturally take the interests of

[120] *Id.* ¶ 45.

[121] ELHAUGE & GERADIN, supra note 7, at 842.

[122] ICI v. Commission, [1972] E.C.R. 619, at ¶ 64.

[123] Suiker Unie [1975] ECR 1663, at ¶¶ 173-174.

[124] China Anti–Monopoly Law Art. 13; Taiwan Fair Trade Act Art. 7.

[125] *Philip Morris*, [1987] E.C.R. 4487, at ¶65; Warner-Lambert/Gilette, [1993] OJ L 116/21, at ¶24.

its shareholder into account.[126] For present purposes, this holding is mainly interesting because it confirms a broad view of what constitutes "influence" that is not limited to exercising voting rights and could be met even for passive horizontal shareholders, given that managers will naturally also take their interests into account. But this is not the abuse of dominance theory that is interesting for horizontal shareholding, which usually does not involve investments in or by a firm that alone has a dominant position. Instead, the interesting abuse of dominance theory for horizontal shareholding is that it creates a collective dominant position that leads to excessive pricing, as discussed next.

4.3. EU Law on Collective Dominance and Excessive Pricing

53. Unlike Sherman Act § 2, TFEU Article 102 also applies to collective dominance[127] and bans abusing that dominance through excessive pricing.[128] To be sure, there has not been much enforcement of the ban on excessive pricing by a dominant firm or set of firms. But such non enforcement reflects the fact that monopoly or oligopoly pricing should not be deemed an anticompetitive abuse for good substantive reasons that do not apply to horizontal shareholding. Single-firm monopoly pricing should not be regarded as an abuse of a dominant position not only because the offense cannot be meaningfully defined, but also because when such monopoly power is obtained legitimately, the profits from monopoly pricing are an affirmatively desirable reward for making procompetitive investments that enable a firm to offer a product that is so much better than rival options that it enjoys monopoly power.[129] Oligopoly pricing should not be regarded as an abuse of a collective dominant position because such price interdependence arises from the unavoidable act of offering prices, an act that is necessary to compete at all, and thus it is impossible to define the illegal conduct that the price-coordinating firms are supposed to avoid.[130]

54. None of those substantive reasons provides any obstacle to applying TFEU Article 102 to condemn horizontal shareholding when it creates a collective dominance that produces excessive pricing. Unlike with monopoly pricing, the profits from anticompetitive horizontal shareholding do not reflect a desirable reward for procompetitive investments. To the contrary, they reflect a diminution of competition between firms that economic models and empirical work shows affirmatively lowers output and investment.[131] Unlike with oligopoly pricing, horizontal shareholding does not reflect an unavoidable act, like pricing. Holding leading shares in horizontal competitors is easily avoidable conduct and hardly necessary for market competition. The offense can thus readily be defined in a way that lets investors know what sort of conduct they need to avoid.

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[126] Warner-Lambert/Gilette, [1993] OJ L 116/21, at ¶ 25.

[127] TFEU Article 102 (banning "Any abuse by one *or more* undertakings of a dominant position"); ELHAUGE & GERADIN, supra note 7, at 272-73.

[128] TFEU Article 102(a) (banning the abuse of imposing "unfair … prices"); United Brands v. Commission, [1978] E.C.R. 207.

[129] ELHAUGE & GERADIN, supra note 7, at 271, 407-08; Elhauge, *Disgorgement as an Antitrust Remedy*, 76 ANTITRUST LAW JOURNAL 79, 89-90 (2009); Elhauge, *Defining Better Monopolization Standards*, 56 STANFORD LAW REVIEW 253, 331-32 (2003).

[130] ELHAUGE & GERADIN, supra note 7, at 273, 842-843.

[131] *See supra* Part 2.2.

55. When horizontal shareholding has anticompetitive effects, it is because it creates contractual and structural links between competing firms that diminish those firms' incentives to compete with each other.[132] Even if those links did nothing other than facilitate oligopolistic coordination among those firms, it would create a collective dominant position under EU competition law.[133] But anticompetitive horizontal shareholding is even worse because it creates contractual and structural links that anti-competitively reduce the incentives of each firm to compete with each other and thus allows them to collectively exercise a market power to raise prices. Even before EU competition law concluded that pure oligopolistic coordination could constitute a collective dominant position, it clearly concluded that when contractual or structural links reduce competition and raise prices, those links create a collective dominant position.[134] Under this theory, showing any ongoing agreement among the firms on pricing or other business conduct would not be necessary. It would suffice that the horizontal shareholding created a collective dominance among the competing firms that led to anticompetitive pricing.

56. Indeed, applying TFEU Article 102 to horizontal shareholding might finally provide an answer to the puzzle of what to do with Article 102's ban on abusing a dominant position through excessive pricing. The current lack of enforcement of this provision is something of an embarrassment because the provision must have been meant to have *some* impact, so effectively reading the provision out of the Treaty hardly seems faithful to its text. Using the provision to prohibit horizontal shareholding that creates a collective dominance that leads to anticompetitive pricing would finally give the provision meaning, while remedying a serious anticompetitive problem.

57. Tackling horizontal shareholding as collective dominance that leads to excessive pricing is also possible in other nations such as China, Russia, Taiwan, and Turkey, which (like the EU) have abuse of dominance statutes that apply to collective dominance[135] and treat excessive pricing as an abuse of dominance.[136]

5. Conclusion

58. Horizontal shareholding poses the greatest anticompetitive threat of our times, mainly because it is the one anticompetitive problem we are doing nothing about. This enforcement passivity is unwarranted.

[132] *See supra* Part 2.2 & 3.

[133] Gencor Limited v. Commission, [1999] E.C.R. II–753; Airtours v. Commission, [2002] E.C.R. II–2585, at ¶ 61.

[134] France v. Commission (Kali & Salz), [1998] E.C.R. I–1375, at ¶¶ 171, 221.

[135] China Anti-Monopoly Law Arts. 17 & 19; Russia Competition Law Arts. 4(10), 5; Taiwan Fair Trade Act, Arts. 5 & 5–1; Turkey Competition Art. 6.

[136] China Anti-Monopoly Law Art. 17(1) (banning a firm in dominant market position from "selling at unfairly high prices or buying at unfairly low prices"); Russia Competition Law Art. 6(1) (prohibiting a "monopolistically high price"); OECD, Predatory Foreclosure 247 (2005) (Taiwan); Belko Decision, No. 01–17/150–39 (Turkey Competition Commission 2001) (banning excessive pricing by a dominant firm).

59. As I showed above, economic proofs and empirical evidence have strongly confirmed my conclusion that high levels of horizontal shareholding in concentrated markets often have anticompetitive effects. They have also confirmed my conclusions that such horizontal shareholding helps explain inefficient methods of executive compensation, the historic increase in the investment-profit gap, and the recent rise in economic inequality. Indeed, recent empirical evidence indicates that horizontal shareholding is the dominant explanation for the gap between corporate investments and profits that is restraining economic growth.

60. Recent legal literature also strongly confirms that in the U.S. anticompetitive horizontal shareholding can be tackled under Clayton Act § 7. I extend this legal analysis to explain how anticompetitive horizontal shareholding can also be tackled under Sherman Act § 1. I further show that although EU merger regulation can only tackle some anticompetitive horizontal shareholding, it can be fully addressed under TFEU Article 101 as an anticompetitive agreement or concerted practice or under Article 102 as collective dominance that leads to excessive pricing. The same holds in other nations that have parallel provisions to either the U.S. or EU. Administrability concerns with legal enforcement rest on the straw man claim that horizontal shareholdings would leap in and out of illegality depending on whether changing levels met certain mechanical thresholds. In reality, enforcement would be based on evidence of durable adverse price effects, which ameliorates any concerns about administrability.