Horizontal Shareholding and Antitrust Policy

ABSTRACT. “Horizontal shareholding” occurs when one or more equity funds own shares of competitors operating in a concentrated product market. For example, the four largest mutual fund companies might be large shareholders of all the major United States air carriers. A growing body of empirical literature concludes that under these conditions market prices are higher than they would otherwise be. We consider how the antitrust laws might be applied to this practice, identifying a theory of harm and how it matches the law, examining the issues that courts are likely to encounter, and attempting to anticipate litigation problems. While the current literature on horizontal shareholding does not offer a single robust explanation of how the price increase mechanism works, we show that the “effects” test expressed in the Clayton Act does not require proof of the precise mechanism. Further, Section 7’s “solely for investment” exception typically will not apply. We also briefly discuss special problems of private plaintiff challenges. Finally, we elaborate the two ways that efficiencies are relevant to analysis of such mergers.

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INTRODUCTION

Horizontal shareholding occurs when a number of equity funds own shares of competitors operating in a concentrated product market. For example, the four largest mutual fund companies might be the four largest shareholders of all the major U.S. airlines. A growing body of empirical literature concludes that under these conditions, market output is lower and prices are higher than they would otherwise be. Due to the twin trends of increases in the mutual fund industry and the rise of concentration in the U.S. economy, the impact of lessening competition due to common ownership by mutual funds has a potentially adverse effect on consumer welfare. We argue here that the “effects” test articulated for mergers in Section 7 of the Clayton Act permits challenges to such mergers, whether or not the precise mechanism by which such mergers elevate product prices in a particular case is precisely known.

We adopt two assumptions throughout this Feature: first, the firms in a concentrated product or service market are not fixing prices in a way that would subject them to liability under Section 1 of the Sherman Act; second, the managers of the funds that acquire interests in their shares are not agreeing with each other about how to purchase or vote the shares or otherwise influence the behavior of these firms. If either of these two horizontal agreements existed, it would be independently actionable under Section 1 of the Sherman Act. Rather, this Feature considers the extent to which antitrust can be brought to bear against horizontal shareholding without proof of one of those two forms of illegal agreement.

Part I discusses the development of large-scale mutual fund ownership and evaluates the resulting threats to competition. Part II examines the antitrust legal theory justifying enforcement, including the Clayton Act’s plain language “effects” test. Part III explains why an “efficiency defense” is relatively unimportant.

to such mergers. Then Part IV considers the Clayton Act exemption for stock acquisitions “solely for investment.” Finally, Part V considers the use of post-acquisition evidence. We conclude that to the extent the empirical evidence warrants the conclusion that large scale horizontal acquisitions threaten reduced product output and higher prices, the existing tools of antitrust merger enforcement are sufficient to support challenges to those acquisitions.

I. TRENDS: INCREASING MUTUAL FUND OWNERSHIP AND INCREASING FUND SCALE

A. The Increasing Competitive Significance of Mutual Fund Ownership

In the United States, the diversified mutual fund industry arose in the 1970s. This model of saving and investing greatly benefits consumers by allowing them to invest small amounts in a huge range of assets at low cost. The development of the index fund also freed consumers from paying high fees for professional stock-picking and instead allows them to invest in the whole market at low cost. Economies of scale in running a fund allow large funds to offer lower fees and greater diversification, two attributes desired by consumers. Funds like Vanguard and Fidelity were early and successful movers in the space and today have large market shares, along with BlackRock and State Street.


5. “A mutual fund is a portfolio of stocks that may have an industry focus (e.g., energy) or a strategy (e.g., growth). An index fund (which is a type of mutual fund) holds a portfolio of stocks designed to exactly mimic the index of interest (e.g., S&P 500).” Eric A. Posner et al., A Proposal To Limit the Anti-Competitive Power of Institutional Investors, ANTITRUST L.J. (forthcoming 2018) (manuscript at 5), http://ssrn.com/abstract_id=2872754 [http://perma.cc/34XQ-FW8R].

6. Azar et al., supra note 1, at 2 n.2. (“BlackRock was the single largest shareholder of one fifth of all American publicly traded firms . . . . Our analysis indicates that with now more than $5 trn assets under management, BlackRock is also the largest shareholder of 33 of the FTSE 100 companies (as well as among the top-5 shareholders of 89 of them), the largest shareholder of one-third of the DAX-30 companies; Vanguard, with more than $4 trn assets under management, is almost as large. [Jan] Fichtner, [Eelke M.] Heemskerk, and [Javier] García-Bernando . . . calculate that the combined holdings of BlackRock, Vanguard, and State Street make them the largest investor of 88% of all firms in the S&P 500.”) (citations omitted); Matthew Keenan, Fidelity Manager To Retire, WASH. POST (Nov. 1, 2005), http://www.washingtonpost.com/wp-dyn/content/article/2005/10/31/AR2005103101655.html [http://perma.cc/BGFZ-KYJS]; see also Miguel Anton et al., Common Ownership, Competition, and Top Management Incentives 3 (Ross Sch. of Bus., Working Paper No. 1328, 2018), http://ssrn.com
By “institutional investors,” we refer to asset managers, companies that manage mutual funds, sovereign wealth funds, and any other entities that manage stock market investing on behalf of final owners. Institutional investors today own roughly 70% of the U.S. stock market.7 While the large mutual fund companies listed above hold in the range of 4-6% of the U.S. stock market each, thousands of smaller asset management organizations together hold the remaining approximately 50%.8

Competition economists initially failed to recognize the impact of institutional investors on competition, perhaps because the funds held small shares in competitors in absolute terms.9 The last two decades have seen a dramatic change:

[W]hen combined, BlackRock, Vanguard, and State Street constitute the single largest shareholder in at least 40 percent of all listed companies in the United States . . . . When restricted to the pivotal S&P 500 stock index, the Big Three combined constitute the largest owner in 438 of the 500 most important American corporations, or roughly in 88 percent of all member firms.10

Just seventeen years ago, BlackRock, Vanguard, and State Street combined were the largest shareholder in only 25% of the S&P 500.11 Similarly, fewer than 10% of U.S. public firms had institutional investors in common with product market competitors in 1980, while that percentage rose to 60% by 2014.12 Thus, the widespread occurrence of common ownership of firms that compete in the product market, or horizontal shareholding, in this form is relatively new and has not yet attracted policy or enforcement action from the agencies.

8. Id.; see Anton et al., supra note 6, at 3.
10. Fichtner et al., supra note 4, at 313.
11. See id.; Azar, supra note 9, at 2.
B. Competitive Effects of Horizontal Shareholding

For a competition problem to arise from large shareholders holding product market competitors, those owners must have the incentive and ability to soften the intensity of competition, which harms consumers when pursued in an output market. We begin by showing ability. Large shareholders engage in corporate governance, which may provide the ability to soften competition. Indeed, many activists have been encouraging better and increasing corporate governance over the last few decades, and we see evidence of large mutual funds engaging in oversight of their portfolio companies. Fund representatives meet with management, give opinions, vote on compensation, and so forth. Fund managers typically accumulate all the votes they control from all their funds and fund families and vote them as one block in order to increase their influence. Certainly the funds themselves make statements indicating their belief that they can influence decisions of the firms they hold. For example:

We engaged with roughly 1500 companies around the world in 2012. When we engage successfully and companies adjust their approach, most observers are never aware of that engagement. . . . We typically only vote against management when direct engagement has failed. . . . engagement encompasses a range of activities from brief conversations to a series of one-on-one meetings with companies.

And along the same lines:

[B]y its nature, voting [is] . . . a rather blunt instrument. [E]ngagement with directors and management of the companies in which we invest provides for a level of nuance and precision that voting, in and of itself, lacks. So while voting is visible, it tells only part of the story. . . . We have found through hundreds of direct discussions every year that we are frequently able to accomplish as much—or more—through dialogue as we are through voting.18

The ability to soften competition must be paired with the incentive to do so if outcomes are to change. In standard economic models of competition, softer product market competition leads to higher prices and higher profits for the product market firm.19 A firm earning higher profits experiences an increase in its stock price, and any mutual fund holding that stock experiences higher returns as a consequence. Funds benefit from higher firm profits in two ways: higher returns increase investment flows into the fund, and they may also increase incentive-based compensation to fund managers themselves.20 These incentives and results are the same for other types of institutional investors, such as sovereign wealth funds, and all sizes of investors.

The theoretical literature to date does not identify what mechanism funds may use to soften competition. One popular model assumes the management of the competing firms maximizes the profits of their owners (the investors in the funds), which they can do because they know how much each investor owns of their rivals in the industry.21 Alternative, and simpler, possibilities include: fund managers can encourage a common strategy among product market rivals; monitor product market rivals; tie compensation to industry performance; raise the patience level or value for the future of rival management teams; or, most easily, fail to mimic the actions of an owner that holds only one firm. All of these attributes appear as determinants of prices in economic models of multi-period competition.22

18. Booraem, supra note 16.
21. Timothy Bresnahan & Steven C. Salop, Quantifying the Competitive Effects of Production Joint Ventures, 4 Int’l J. Indus. Org. 155, 156 (1986) (developing such a model); see also Azar et al., supra note 1; O’Brien & Salop, supra note 3, at 571 (“[W]hen a firm acquires a partial financial interest in a rival, the acquiring firm’s unilateral pricing incentives to compete are reduced at the margin.”).
22. See, e.g., B. Douglas Bernheim & Michael D. Whinston, Multimarket Contact and Collusive Behavior, 21 RAND J. Econ. 1, 3 (1990); Joseph Farrell & Eric Maskin, Renegotiation in Repeated Games, 1 Games & Econ. Behav. 327, 328 (1989); James W. Friedman, A Non-Cooperative
A growing empirical body of evidence suggests that horizontal shareholding has led to higher prices in product markets. At this writing, analysis of the effects of horizontal shareholding is nascent compared to the analysis of coordinated and unilateral effects from mergers. Nevertheless, the academic literature finding adverse competitive effects is growing. In highly concentrated product markets, shareholding by a small number of institutional investors is causally linked with reduced output and higher prices. Studies to date have covered the banking and airline industries, with others underway. The empirical literature also sheds light on a possible mechanism, with research demonstrating that increased horizontal shareholding increases absolute performance compensation, which softens product market competition. Most of the studies use the MHHI, a modified version of the familiar Herfindahl-Hirschman Index, to measure the extent of horizontal shareholding and common ownership. However, more work needs to be done before this metric can be accepted as the preferred basis for empirical work or litigation. In particular, we do not yet understand whether or what size of harms arise from large common owners compared to small ones, what constitutes “large,” the impact of total amounts of horizontal shareholding, or the effects of the ordering of owner size (for example, the largest owner compared to a particular percentage amount of ownership). MHHI does not take into account ordinal impacts of ownership or the impact of communication.


24. This literature review below covers only academic and government research. Due to the inherent policy interest of the topic, there are now many industry-sponsored reports which we do not list here.

25. Azar et al., supra note 1.


27. Anton et al., supra note 6, at 2.

28. The Herfindahl-Hirschman Index, or HHI, equals the sum of the squares of all firms in the market. For information on the derivation of the HHI, comparison to alternatives, and predictability of relationship between HHI readings and market structure, see Herbert Hovenkamp, Federal Antitrust Policy: The Law of Competition and Its Practice § 12.4 (5th ed. 2015).

29. Bresnahan & Salop, supra note 21, at 155; O’Brien & Salop, supra note 3, at 563.
Though the channel through compensation is one possibility, the mechanism by which horizontal shareholding reduces competition is not yet known with certainty and may not be one of those discussed in the theoretical literature above. Indeed, there may be more than one mechanism, and mechanisms may vary by industry, over time, and by different patterns of ownership. As developed below, however, the Clayton Act does not insist on proof of the precise mechanism by which prices are increased. It requires only a showing that the "effect may be substantially to lessen competition."  

II. LEGAL THEORY AND POTENTIAL OBSTACLES

Both the Sherman Act and the Clayton Act can be brought to bear against anticompetitive horizontal shareholding. Section 1 of the Sherman Act prohibits "combination[s]" in restraint of trade, as well as contracts and conspiracies. The triggering conditions are an agreement between two or more firms and a "restraint" of trade, which is a restraint on competition that has the actual or probable effect of reducing output and increasing price-cost margins. The statute itself says nothing about whether it condemns purpose or effects, and the case law reaches both. It also clearly applies to ongoing arrangements such as joint ventures that, while initially lawful, are subsequently modified so as to include agreements that restrain trade. Ever since its very first merger decision, the Supreme Court has also applied Section 1 to completed acquisitions that leave no separate entities capable of conspiring once the acquisition has occurred. That is, Section 1 can be brought to bear against a "combination" even if the result is a single firm that is legally unable to fix prices with itself. The mere formation of the combination is sufficient to trigger Section 1.

30. See infra text accompanying notes 39-41.
31. 15 U.S.C. § 1 (2012) (reaching "every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade").
33. For example, naked price fixing is a per se violation even if the cartel was unsuccessful in raising price. See 12 PHILLIP E. AREEDA & HERBERT HOVENKAMP, ANTITRUST LAW ¶ 2004 (3d ed. 2012). By contrast, Sherman Act cases under the rule of reason require a showing of anticompetitive effects. See, e.g., FTC v. Actavis, Inc., 570 U.S. 136, 158 (2013).
34. E.g., Nat’l Collegiate Athletic Ass’n v. Bd. of Regents, 468 U.S. 85, 113-14, 120 (1984) (condemning the NCAA’s 1981 decision to restrict national broadcasting of football games initiated many years after the initial venture was formed in 1905).
36. Id. The Court condemned under § 1 a series of transactions under which Northern Securities Co., a New Jersey holding company, acquired a controlling interest in the stock of railroads...
Section 7 of the Clayton Act takes a different approach in three ways. First, it is triggered when one firm “acquires” either the stock or assets of another firm, saying nothing about ongoing relationships that do not involve an acquisition. That is, the triggering condition must be the acquisition, whether of stock or a productive asset.

Second, the plain language of Section 7 bases illegality on proven “effects” — namely, when “the effect of such acquisition . . . may be substantially to lessen competition.” The statute says nothing about intent or state of mind, and, significantly, nothing about the precise mechanism by which competition may be lessened. As a result, the legality of the holdings does not require proof of exactly how ownership by these funds raises prices. This is not a novelty in merger enforcement. For example, in more conventional merger analysis, it is also the case that, although the HHI correlates both theoretically and empirically with higher prices, the precise mechanism by which competition is injured in any particular case may not be known. However, the “effects” test in Section 7 of the Clayton Act makes it unnecessary to determine the precise mechanism. For

that had been competitors prior to the acquisition. Justice Holmes dissented, distinguishing earlier decisions such as United States v. Trans-Missouri Freight Ass’n, 166 U.S. 290 (1897), and United States v. Joint Traffic Ass’n, 171 U.S. 505 (1898), because these involved joint ventures in which the participants remained as separate entities and subsequently fixed prices. Justice Holmes complained that the only thing that could reasonably be challenged in the present case was the stock acquisitions themselves, since subsequent to the transactions the firms were effectively a single entity. N. Sec. Co., 193 U.S. at 385-88. For a contemporary analysis, see ALBERT M. KALES, CONTRACTS AND COMBINATIONS IN RESTRAINT OF TRADE § 139, at 127-28 (1918). Tracking Holmes’s argument, Kales also criticized the decision, observing that while the common law condemned price fixing it had never condemned the mere acquisition of stock. Id.

38. Section 7 can apply to the formation of a joint venture, provided that the vehicle for creating the venture is a stock or asset acquisition. See United States v. Penn-Olin Chem. Co., 378 U.S. 158, 161 (1964) (applying section 7 to the formation of a joint venture where the venture was separately incorporated, and each of the forming companies acquired a fifty percent interest of the venture’s capital stock). In Penn-Olin, the district court had rejected both a Clayton Act Section 7 challenge and a Sherman Act Section 1 challenge. United States v. Penn-Olin Chem. Co., 217 F. Supp. 110, 134, 138 (D. Del. 1963).
39. Section 7 provides, in pertinent part:

No person . . . shall acquire, directly or indirectly, the whole or any part of the stock or other share capital . . . or any part of the assets of another person . . . where in any line of commerce or in any activity affecting commerce in any section of the country, the effect of such acquisition may be substantially to lessen competition, or to tend to create a monopoly.

example, at the time a merger’s legality is assessed, antitrust enforcers may not know whether the firms are likely to raise price due to unilateral effects or some form of cooperative or noncooperative price coordination. The precise form of interaction does not matter as long as the structural analysis predicts that it is likely to occur.41

Third, the Clayton Act itself clearly applies to both complete and partial acquisitions (“the whole or any part” of stock or assets).42 The practices involved in horizontal shareholding generally concern partial stock acquisitions. The same kind of economic theory and evidence (conventionally used in merger analysis) justifies using Section 7 against horizontal shareholding. While Section 7 of the Clayton Act contains an exemption for acquisitions “solely for investment,” the exemption does not apply if actual anticompetitive effects are shown, and particularly not if the holder is voting the shares in question.43

We now illustrate the differences between Section 7 of the Clayton Act and Section 1 of the Sherman Act with an example. Suppose a large investor purchases 20% of Alpha Co. and then later purchases 30% of Beta Co., which is Alpha’s competitor in a concentrated market. Section 1 of the Sherman Act might be applicable if the two acquisitions yielded a “combination” in restraint of trade. In Northern Securities Co. v. United States, the Supreme Court found such an unlawful combination when a single holding company acquired controlling interests in the shares of three formerly independent railroads.44 To the best of our knowledge, a Section 1 action has never been brought against parallel purchases of noncontrolling interests, but neither has a court ever required that the interests be controlling. Further, the “agreement” requirement applies to the stock acquisition, not to the subsequent use, and is present whether or not the interest

43. See infra Part IV.
44. N. Sec. Co. v. United States, 193 U.S. 197, 320 (1904). The government’s complaint alleged that the acquisitions injured competition:

[B]y making the stockholders of each system jointly interested in both systems, and by practically pooling the earnings of both for the benefit of the former stockholders of each, and by vesting the selection of the directors and officers of each system in a common body, to wit, the holding corporation, with not only the power, but the duty, to pursue a policy which would promote the interests, not of one system at the expense of the other, but of both at the expense of the public . . . .

Id. at 322. According to the lower court the acquisition amounted to a “very large majority” of the shares of the acquired railroads. N. Sec. Co. v. United States, 120 F. 721, 723-24 (D. Minn. 1903).
is controlling. The “restraint of trade” standard does not require control, but only that the arrangement serves to reduce output and raise price.

By contrast, Section 7 of the Clayton Act would be triggered by the Beta stock purchase (which is an acquisition); one would only then need to show that the effect may be substantially to lessen competition. The statute does not require the challenger to show that Alpha and Beta are going to fix prices or engage in other collusion-like behavior, which is unlawful only if it meets the Sherman Act’s agreement requirement. Importantly, however, the Alpha or Beta acquisition must be reasonably shown to be the cause of this noncompetitive behavior.

Partial acquisitions are different from complete acquisitions in one important respect. A complete acquisition results in a single entity, making its subsequent decisions unilateral and thus not reachable under Section 1. For that reason, one cannot speak of an ongoing agreement among two completely merged firms. 45

By contrast, a partial acquisition typically leaves the acquiring firm and the remaining assets or equities of the acquired firms as distinct entities. That means that their post-acquisition relationship can still be governed by either Section 7 of the Clayton Act or Section 1 of the Sherman Act, depending on the nature of the conduct. If the conduct is a further acquisition, then Section 7 could be brought to bear. If the conduct is an agreement that restrains trade, then Section 1 of the Sherman Act applies. 46

Transactions leading to horizontal shareholding are “horizontal” mergers, even though each individual stock transaction is between noncompeting companies. For example, if Vanguard buys 15% of United Airlines, that transaction would appear to be neither horizontal nor vertical. The two firms are not competitors, so no horizontal acquisition exists. Further, they do not stand in a buyer-seller relationship in the product market, so there is no vertical acquisition. However, if Vanguard should then buy 15% of Delta Airlines, the result would be that a single firm now holds partial ownership of both United and Delta, two competing airlines. As a result, the relevant merger analysis would be


46. See, e.g., the Division’s press release accompanying the closing of an investigation of a partial acquisition involving Hearst and MediaNews (MNG):

Because Hearst’s minority investment in MNG will not bring the companies under common ownership or control, interactions among them—including any changes in Hearst’s investment and related arrangements that affect competition among the companies’ Bay Area newspapers—will continue to be subject to scrutiny under Section 1 of the Sherman Act as well as the other antitrust laws.

of a horizontal merger in the airline industry involving a partial stock acquisition.

In addition to Section 1 of the Sherman Act and Section 7 of the Clayton Act, Section 5 of the Federal Trade Commission Act empowers the FTC to condemn “unfair methods of competition.” The FTC has independent authority to enforce both Section 5 of the FTC Act and Section 7 of the Clayton Act. The Supreme Court has held that Section 5 of the FTC Act reaches further than the Sherman Act, and its language does not contain an agreement requirement. Nevertheless, the courts have generally declined to find a violation based on conscious parallelism or other collusion-like behavior in the absence of a more-or-less explicit agreement. Section 5 can be used to fill in “gaps” in the coverage of other antitrust provisions, however. For example, an unaccepted solicitation to fix prices can violate Section 5 of the FTC Act, even though it does not produce an agreement and thus does not violate Section 1 of the Sherman Act.

Antitrust enforcement policy against horizontal shareholding by mutual funds presents some novel legal issues. Unlike the traditional merger case, the defendant may not be the company operating in the product market where competition is threatened, but rather the mutual fund that has purchased some of its shares. The broad language of Section 7 of the Clayton Act clearly permits such actions, but drafting complaints will be novel in important ways. For example, should all large institutional investors be sued at once, or only a particular investor who has made a recent significant purchase? The former seems most appropriate, particularly when the accumulation of purchases by all diversified investors is contributing to the feared source of competitive harm. That is, a partial divestiture remedy will almost always require that multiple funds be ordered to divest some of their holdings. Further, the fact that mutual fund acquisitions typically occur incrementally rather than all at once may raise some issues under the ordinary time limitations that the legal system places on lawsuits—namely, the four-year statute of limitations on antitrust damages actions or the doctrine of “laches” which covers suits for equitable relief.

49. E.g., FTC v. E.I. Du Pont de Nemours & Co., 729 F.2d 128, 140-42 (2d Cir. 1984) (declining to find that parallel but not expressly collusive behavior violated Section 5).
50. See, e.g., Valassis Comm’ns, Inc., 141 F.T.C. 247, 249-52 (2006) (issuing a consent order). See generally 6 AREEDA & HOVENKAMP, supra note 32, ¶ 1419, at 147 (noting that because Section 5 of the FTC Act has no agreement requirement, an unaccepted solicitation may be actionable).
III. EFFICIENCIES: SUBSTANTIVE AND REMEDIAL

Merger analysis considers efficiencies at two different stages. First, agencies and courts must consider whether the acquisition itself produces efficiencies sufficient to offset any anticompetitive effects.\(^52\) Second, they must consider the welfare effects of any proposed remedy.

Substantive merger rules are heavily nuanced due to the widespread belief that mergers can lead to reduced costs, improved products or services, or better management. While nearly all naked cartels are challenged upon discovery, only a small percentage of mergers are challenged. That is so because we do not expect efficiency gains from cartels. If their only likely effects are negative, a harsh rule against them is in order.

While the form of horizontal shareholding is a merger by stock acquisition, in substance the structure that is created resembles a cartel rather than a merger. The transaction, for example, of the purchase of airline shares by a mutual fund, does not create efficiencies in the downstream product market where the reduction in competition (such as air travel) is located. For example, being owned by a different mutual fund does not itself lower costs or improve the quality provided to the customers of the downstream firm, the airline. For these reasons, the merger rules governing horizontal shareholding should presumptively be harsh.

Considering remedies, purchasers of mutual funds may be harmed by aggressive application of merger rules to horizontal shareholding because merger enforcement will reduce the monopoly profits that result from the collusion-like effects. A private gain resulting from collusion is hardly a qualifying merger efficiency but only an anticompetitive wealth transfer. To the extent aggressive merger enforcement shifts resources away from shareholder monopoly profits and toward consumers who benefit from product market competition, it is consistent with merger law’s consumer welfare principle.\(^53\)

Antitrust enforcement that prohibits funds from holding classes of product market competitors may also lead to a lower level of diversification for purchasers of mutual funds. When a fund acquires the stock of a competitor of firms it already holds, then the transaction may create efficiencies by increasing portfolio

\(^{52}\) On the efficiencies defense in Section 7 cases, see 4A AREEDA & HOVENKAMP, supra note 32, ch. 9E.

share diversity. Greater diversification within a fund lowers the variance of returns and creates a product more attractive to consumers. This efficiency can be measured without much difficulty because index composition, portfolio composition, and stock return data are easily obtained. There is some evidence that the extent of this efficiency is small compared to the variance across existing mutual funds.54 We would not expect large gains in diversification from holding, for example, the fourth airline, because the returns of firms in the same industry are highly correlated and are more highly correlated than returns of firms in different industries.55 However, it is important to appreciate that adding or subtracting the stock of a product market competitor does not change the expected return of the fund. That is, in theory, expected returns above those based on risk are equal across all stocks.56 There is no efficiency gain from the acquisition in the level of the portfolio’s return, only in any reduction in variance.57

However, because the efficiencies occur in a different market and accrue to a different set of consumers than do the harms, it is not clear that either an enforcer or a court should consider those efficiencies at all before bringing a case or deciding on liability, respectively. A standard application of the rule of reason under a general welfare test would suggest that an enforcer should compare the gains from additional diversification to the harms from higher product prices to determine the net effect. But it is not possible to carry out the customary combining of these two terms in a horizontal shareholding case because the gains accrue to owners of mutual funds while the higher prices are paid by consumers in the product market (for example, airline consumers). In *Philadelphia Bank*, the Supreme Court held that efficiencies obtained in a different market could not be used to defend against anticompetitive effects in the market that provoked the challenge.58 *Philadelphia Bank* therefore implies for this case that the anticompetitive consequences of the acquisition in the challenged product market (airline travel) could not be offset by any efficiency gains in the mutual fund market. And, as noted above, there are no other efficiencies for the authority to consider.

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57. While theory would predict that changes in the way mutual funds invest their holdings could have macroeconomic effects, that literature does not yet exist.

58. United States v. Phila. Nat’l Bank, 374 U.S. 321, 370 (1963) (rejecting the argument that although the merger reduced competition in the market for smaller loans, there were offsetting efficiencies in a different market for larger loans); see 4A AREEDA & HOVENKAMP, supra note 32, ¶ 972.
The 2010 Horizontal Merger Guidelines (HMG) adhere to the Philadelphia Bank position on this issue, although they do state that the agency might exercise its prosecutorial discretion not to challenge a merger that produces significant efficiencies in a market other than the one experiencing the threatened anticompetitive effects.\textsuperscript{59} However, this is not a typical HMG example case of problems in small markets that cannot be remedied in an otherwise pro-competitive merger. Rather, the balancing of the convenient operation of the financial services industry against monopoly prices is likely sufficiently difficult to solve to require the involvement of additional governmental bodies. For example, if anticompetitive effects could be eliminated by changes in voting practices, Congress might want to pass new laws concerning the requirement to vote shares. Such laws could balance the beneficial effects of corporate governance against harmful lessening of competition. Similarly, Congress could alter the tax implications or ERISA regulations of different types of savings vehicles to favor those with the least anticompetitive impact.

Two other facts are significant for present purposes. First, under the HMG, any claimed efficiencies would have to be sufficient to offset any price increase in the affected market.\textsuperscript{60} Efficiencies in the management of mutual funds will not have any impact, however, on product prices (such as in the air travel market). Secondly, the tradeoff described above between higher prices for goods and lower variance of stock portfolios varies greatly across consumers depending on purchasing patterns and stock holding. For example, about half of the U.S. population owns no stock at all. These consumers can only be harmed by mutual fund acquisitions that reduce competition and lead to higher prices or lower quality in the product market. Any evidence that the acquisition will tend to lower innovation, raise prices, or cause other harm to this group cannot be offset by any diversification efficiency, no matter its size. Relatively wealthy shareholders will be the group bearing any losses from the reduced level of diversification in mutual funds, though these individuals may offset those losses against the gains they receive from lower prices.\textsuperscript{61}


\textsuperscript{60} See id. at 29-31.

\textsuperscript{61} The top 10\% of the wealth distribution owns a significant fraction of mutual funds but are unlikely to depend on the diversification we discuss here due to their holdings of foreign stocks, private equity, hedge funds, and other real assets. See 2013 Survey of Consumer Finances, FED. RES. (2014), http://www.federalreserve.gov/econres/scf_2013.htm [http://perma.cc/P2VH-YQ4Z]. The authors calculated this information using data from the 2013 Survey of Consumer Finances.
A mutual fund could raise an additional efficiency: it engages in better governance than the previous owner, and this governance causes the firm to operate more efficiently. A “merger-specific” efficiency, which the HMG mandate would require the fund to show either that it is better able to govern than the previous owner or that it is bigger than other owners and therefore exercises more positive influence, even if it has the same ability to govern. In either case, however, a less anticompetitive alternative exists to the challenged conduct: the mutual fund can hold a different firm that does not compete with a firm it already holds. If the fund holds firms that do not compete in the same product market it will achieve corporate governance efficiencies without any anticompetitive effects.

Section 4 of the Clayton Act permits private persons to bring treble damages actions for injuries caused by antitrust violations, including unlawful mergers. Private lawsuits and class actions are very likely to begin to accumulate in this area. Settlements that create rules about which funds may hold which assets may begin to proliferate. This has the potential to cause huge inefficiencies in the mutual fund industry. Different funds will reach different settlements with different courts, which is likely to create a playing field that is not level across funds. Moreover, one court’s settlement may be inconsistent with another’s and hamper a fund’s operations. An additional risk is that a settlement is based on a benchmark that can change over time. For example, a fund may be found liable for lessening competition because it is the largest shareholder in two competitors. If the fund is then enjoined from being the largest shareholder, it must determine its asset acquisitions by monitoring what all other owners buy and reacting accordingly. Legal holdings may become illegal if the previously largest shareholder sells some of its stake. The process of choosing assets to hold in a mutual fund will become much more complicated and costly. Citizens who use mutual funds to save will be negatively impacted by uncoordinated private competition law enforcement.

A motivation for our enforcement recommendation is to generate some urgency around creating a policy that prevents these harms. Here, the challenge is to devise a remedy that eliminates or significantly reduces the anticompetitive

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62. An efficiency is “merger specific” if, as a practical matter, it can be created only by the challenged merger. See Horizontal Merger Guidelines, supra note 59, at 30 (“The Agencies credit only those efficiencies likely to be accomplished with the proposed merger and unlikely to be accomplished in the absence of either the proposed merger or another means having comparable anticompetitive effects. These are termed merger-specific efficiencies.”).

63. Id. at 29–31.


65. On private actions challenging mergers under Section 7 of the Clayton Act, see 2A Areeda & Hovenkamp, supra note 32, ¶ 356.
effects of horizontal shareholding, while also preserving many efficiencies that ordinarily accrue to mutual fund portfolio selection and management. Such a balance could result in a set of enforcement actions and policies that achieve broad social objectives: competitive markets, low-cost savings vehicles such as mutual funds, and well-functioning capital markets. Whatever safe harbor or enforcement policy is chosen will certainly be challenged in court and must be carefully designed to fit within current law.

**IV. ACQUISITIONS “SOLELY FOR INVESTMENT”**

Section 7 contains an exemption for acquisitions that are “solely for investment.” While equity shares held by mutual funds might be considered as held for investment, they very likely do not meet the relatively strict requirements of this statutory exemption. The provision was intended to apply to passive investors who do not “by voting or otherwise” bring about or attempt to bring about a noncompetitive result. Ordinarily a statutory exemption applies to conduct that would otherwise violate the statute, but that is not how courts have interpreted the “solely for investment” provision. Rather, most have held that it applies only where the acquisition in question did not “substantially lessen competition” at all, which means that it would be lawful whether or not it was solely for investment. Two courts of appeals agree that the section was meant as little more than an assurance to purely passive investors rather than as a limitation on the Clayton Act’s coverage. One district court decision suggests that the “solely for investment” exception is “mere surplusage.”

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66. One possible solution is an enforcement safe harbor policy, as in Posner et al., *supra* note 5, at 33-43.

67. 15 U.S.C. § 18 (2012) (“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.”).

68. *Id.*


70. See, e.g., Golden Grain Macaroni Co., 78 F.T.C. 63, 172 (1971) (“[W]hen an acquisition will necessarily affect the competitive behavior of the two involved firms, it cannot be said that the sole purpose of the acquisition was for investment.”); see also § 5 AREEDA & HOVENKAMP, *supra* note 32, ¶ 1240b (examining other decisions that come to the same conclusion).

71. See Gulf & W. Indus., Inc. v. Great Atl. & Pac. Tea Co., 476 F.2d 687, 693 (2d Cir. 1973); Golden Grain Macaroni Co. v. FTC, 472 F.2d 882 (9th Cir. 1972) (affirming the FTC’s order in *Golden Grain Macaroni Co.*, except regarding the divestiture of one company).
for investment” language removes the “incipiency” test from qualified acquisitions.\footnote{Anaconda Co. v. Crane Co., 411 F. Supp. 1210, 1219 (S.D.N.Y. 1975).} That is, ordinarily the statute condemns mergers whose effect “may be” substantially to lessen competition. However, if an acquisition is determined to be solely for investment, then the test for that particular acquisition is whether the acquisition actually brings about or is an attempt to bring about a substantial lessening of competition.\footnote{See id.}

The courts have also been clear that an investment acquisition can violate the basic provision of Section 7, even though it is not of a complete or even a controlling interest.\footnote{See, e.g., Denver & Rio Grande W. R.R. Co. v. United States, 387 U.S. 485, 501 (1967) (“A company need not acquire control of another company in order to violate the Clayton Act.”); United States v. E.I. du Pont de Nemours & Co., 353 U.S. 586, 602-07 (1957) (condemning a 23% interest); United States v. Dairy Farmers of Am., Inc., 426 F.3d 850, 862 (6th Cir. 2005) (reversing summary judgment against the government and explaining that a 50% non-voting (non-controlling) interest could violate the statute because “there may be a mechanism that causes anticompetitive behavior other than control” (e.g., common ownership might reduce the firms’ incentives to compete)); Dan River, Inc. v. Unitex, Ltd., 624 F.2d 1216, 1225 (4th Cir. 1980) (explaining that a 20% block “frequently is regarded as control”); Gulf & W., 476 F.2d at 695-97 (finding that 19% stock ownership was sufficient to influence the acquired firm’s policy); Am. Crystal Sugar Co. v. Cuban-Am. Sugar Co., 259 F.2d 524, 526-28 (2d Cir. 1958) (condemning a 23% acquisition); see also O’Brien & Salop, supra note 3, at 565 n.21 (listing cases).} As a result, a firm cannot make out the “solely for investment” claim simply by showing that the interest is noncontrolling.\footnote{See, e.g., Denver & Rio Grande W. R.R. Co. v. United States, 387 U.S. 485, 501 (1967) (“A company need not acquire control of another company in order to violate the Clayton Act.”); United States v. E.I. du Pont de Nemours & Co., 353 U.S. 586, 602-07 (1957) (condemning a 23% interest); United States v. Dairy Farmers of Am., Inc., 426 F.3d 850, 862 (6th Cir. 2005) (reversing summary judgment against the government and explaining that a 50% non-voting (non-controlling) interest could violate the statute because “there may be a mechanism that causes anticompetitive behavior other than control” (e.g., common ownership might reduce the firms’ incentives to compete)); Dan River, Inc. v. Unitex, Ltd., 624 F.2d 1216, 1225 (4th Cir. 1980) (explaining that a 20% block “frequently is regarded as control”); Gulf & W., 476 F.2d at 695-97 (finding that 19% stock ownership was sufficient to influence the acquired firm’s policy); Am. Crystal Sugar Co. v. Cuban-Am. Sugar Co., 259 F.2d 524, 526-28 (2d Cir. 1958) (condemning a 23% acquisition); see also O’Brien & Salop, supra note 3, at 565 n.21 (listing cases).} Control is not the issue; rather the issue is having enough power to influence firm behavior or performance, or to block others from so doing. Whether the acquiring firm is entitled to vote the shares is important, although not decisive.\footnote{E.g., Dairy Farmers, 426 F.3d at 860 n.3 (positing that the lack of control was not decisive of the “solely for investment” limitation); United States v. Tracinda Inv. Corp., 477 F. Supp. 1093, 1098-99 (C.D. Cal. 1979) (permitting the acquisition because the acquiring firm was contractually limited in its voting of the acquired stock); cf. United States v. Gillette Co., 55 Fed. Reg. 28312 (Dep’t of Justice July 10, 1990) (permitting an acquisition “solely for investment” when an investor promised not to seek a position on the board of directors nor to vote in a way that might lessen competition).} Several antitrust consent decrees have permitted acquisitions conditional on voting limitations.\footnote{E.g., Time Warner, Inc., 61 Fed. Reg. 50301, 50308-09 (Fed. Trade Comm’n Sept. 25, 1996) (proposed consent agreement) (requiring the divestiture of a 7.5% equity position or acceptance of capped non-voting shares); Gillette Co., 55 Fed. Reg. 12567, 12570 (Dep’t of Justice Dec. 13, 1990) (requiring the divestiture of a 25% equity position).}
It is doubtful that such limitations would be effective in combating the anticompetitive effects of horizontal shareholding.\textsuperscript{78}

Finally, an acquisition that is regarded as solely for investment and lawful at the time it is made may later become unlawful. In \textit{DuPont}, the Supreme Court held that the “solely for investment” provision resulted in nonimmunity for an acquisition that was thought to be harmless when made but that later was used by the parties to produce anticompetitive results.\textsuperscript{79} This holding adds an important element to ordinary Section 7 coverage. While the statute itself applies only to acquisitions, the “solely for investment” provision considers both the original acquisition and the subsequent use of the acquired shares.

In all, nothing in the statute or case law stands in the way of merger decrees that seek to control anticompetitive outcomes by limiting a shareholder’s ability to vote its shares. Of course, this does not mean that such remedies are appropriate on welfare grounds, but only that they appear to be legally permissible.

\section*{V. POST-ACQUISITION EVIDENCE}

Since the passage of the Hart-Scott-Rodino Act ("HSR")\textsuperscript{80} and establishment of pre-merger notification in 1976, most mergers are challenged before they occur. As a result, there is generally no "post-acquisition" evidence to consider. Nevertheless, the statute also condemns anticompetitive, completed acquisitions, and both the government and private plaintiffs are empowered to pursue mergers that have already been consummated. Thus, government agencies continue to pursue completed acquisitions, even though HSR gives them an opportunity to use pre-acquisition challenges.\textsuperscript{81}

\begin{itemize}
\item \textsuperscript{78} There are other ways for a mutual fund to influence management, such as selling stock. See Posner et al., \textit{supra} note 5, at 44.
\item \textsuperscript{79} \textit{E.I. du Pont de Nemours & Co.}, 353 U.S. at 588-89, 606. The merger was challenged some forty years after the acquisition; further, it was vertical and on a dubious “captive purchaser” theory. \textit{Id.} at 598-99.
\item \textsuperscript{81} See, e.g., Chi. Bridge & Iron Co. N.V. v. FTC, 534 F.3d 410, 420-21 (5th Cir. 2008); \textit{In re Evanston Nw. Healthcare Corp. Antitrust Litig.}, No. 07 C 04446, 2016 WL 4720014, at *4 (N.D. Apr. 4, 1990) (proposed final judgment) (imposing restrictions on how Gillette’s votes could be cast); cf. Rockwell Int’l Corp., 45 Fed. Reg. 69314, 69317 (Dept of Justice Oct. 20, 1980) (proposed final judgment) (explaining an agreement under which the defendant would not vote its shares during the period of stage divestiture); see also O’Brien & Salop, supra note 3, at 565 n.22 (listing consent decrees); Daniel P. O’Brien & Steven C. Salop, \textit{The Competitive Effects of Passive Minority Equity Interests: Reply, 69 ANTITRUST L.J.} 611, 612 (2001) (arguing that minority ownership can alter economic incentives, but that consent decrees can limit the influence of shareholders). For a critique, see Dubrow, \textit{supra} note 69, at 114.
\end{itemize}
While relevant to both partial and complete acquisitions, post-acquisition developments are particularly important in cases involving the former. Complete acquisitions create a single firm, and the antitrust laws apply only to the “acquisition.” Any evidence of anticompetitive performance or conduct occurring after the merger must be shown to result from the acquisition itself. Causation is problematic when a firm whose full merger appears harmless when made but is thought to become anticompetitive later.

Partial acquisitions of either stock or assets are a different matter. Assuming the merger was horizontal, a competitive relationship continues to exist between the two firms. As noted previously, that relationship continues to be governed by Section 1 of the Sherman Act if it involves an agreement. In addition, any further acquisition of stock could be analyzed under Section 7. In general, the effect on competition is assessed as of the time of trial, not at the time of acquisition.

What about a partial acquisition solely for the purposes of investment that is either not challenged or approved initially, but that subsequently poses a threat to competition? The provision governing purchases for purposes of investment does not separately speak to that issue, but the general merger law is clear: at least in the case of government plaintiffs, a consummated acquisition can be challenged at the point that it becomes anticompetitive, even if that occurs long after the acquisition itself. In *Du Pont*, the Supreme Court held that these post-merger actions were governed by Section 7 of the Clayton Act. The Court largely ignored Section 1 of the Sherman Act even though the government had brought its action under both provisions and actually emphasized the Sherman Act in the previous litigation. The anticompetitive conduct of which the government complained was a series of input provision agreements for automobile fabrics and finishes in which General Motors allegedly favored Du Pont over rival

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82. See 5 AREEDA & HOVENKAMP, supra note 32, ¶1204e.
83. See id. ¶1205c3 (explaining that there are “many distinctions” that make an investment-only “time-of-suit rule” inappropriate for complete mergers).
84. See id. ¶1203c (discussing the potential anticompetitive consequences of a horizontal partial acquisition).
86. See 5 AREEDA & HOVENKAMP, supra note 32, ¶1204e (advocating for the same rule for the purposes of the investment provision as well).
suppliers.89 None of these agreements was an “acquisition” in the merger sense. Justice Burton, joined by Justice Frankfurter, dissented. He faulted the majority for abandoning the Sherman Act issues and relying exclusively on Section 7.90 He then developed in a lengthy argument his objections, concluding that the Court erred in:

(1) applying [Section] 7 to a vertical acquisition; (2) holding that the time chosen by the Government in bringing the action is controlling rather than the time of the stock acquisition itself; and (3) concluding, in disregard of the findings of fact of the trial court, that the facts of this case fall within its theory of illegality.91

But the fact is that the four-member majority92 had done exactly what Justice Burton said.93 Of these, the most relevant for our purposes is the second holding that the appraisal of a partial stock acquisition must occur as of the time of suit rather than the time of acquisition. This seems quite consistent with the language of the “solely for investment” provision, which speaks of someone who has made such an investment “not using the same by voting or otherwise to bring about, or in attempting to bring about, the substantial lessening of competition.”94 That is, this language clearly refers to conduct that occurs subsequent to the acquisition, and the relevant conduct (“voting or otherwise”) is clearly not limited to acquisitions. Of course, the Supreme Court majority did more than use the post-acquisition conduct to conclude that the “solely for investment” limitation did not apply; it also used the same evidence to condemn the merger, in an action brought some forty years after the merger had occurred.

89. Id. at 588-89.
90. Id. at 609. In fact, the acquisitions were purely vertical and occurred during the period between 1917 and 1919. Section 7 was not amended so as to reach vertical acquisitions until 1950, so these stock purchases were not even reachable under the Act unless (1) Section 7 as amended in 1950 was to be applied retroactively; or (2) Section 7 somehow applied to the subsequent preferential dealing insofar as it occurred after 1950. See id. at 612 n.3 (Burton, J., dissenting) (arguing that the Section 7 amendments were inapplicable to acquisitions made before 1950).
91. Id. at 611.
93. The Supreme Court subsequently acknowledged this in United States v. ITT Continental Baking Co. 420 U.S. 223, 242 (1975), noting that the DuPont decision “held that there 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.”
To summarize, the competitive effects of partial stock acquisitions, including horizontal shareholding, can generally be appraised as of the time of the lawsuit. This entails that the challenge is not merely to the “acquisition,” but also to post-acquisition performance or behavior.

CONCLUSION

Section 7 enables the antitrust enforcement agencies to reach back in time and aggregate small purchases, which is critical in enforcement against institutional investors that slowly accumulate large positions over time. As decades of merger enforcement has established, it is not necessary for a challenger to articulate exactly how harmful coordinated interaction might occur, but only to show a likelihood that it will occur. This remains a critical difference between Section 1 of the Sherman Act and the more prophylactic reach of Section 7 of the Clayton Act, in addition to placing a premium on the use of empirical evidence.

Nevertheless, significant issues remain unresolved, pertaining to both legal substance and the design of effective remedies. Section 1 of the Sherman Act may still be a useful agency tool when the challenged conduct involves agreement-driven conduct other than an acquisition. On the question of remedy, partial divestitures currently seem to be the most promising, although care must be taken that they are properly coordinated across all segments of a market.

In sum, Section 7 of the Clayton Act presents a promising vehicle for combatting the anticompetitive effects of horizontal shareholding. An acquisition should be enjoined when the acquisition causes competitive harm in the product market in which institutional investors acquire the stock of two or more competitors. While more research into where these effects are likely to be strongest is needed, current theory would point towards industries where fund overlaps are large, holdings as a share of product market firms are significant, and the product market is already concentrated.