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November 4, 2019

Mr. Bilal Sayyed
Director
Office of Policy Planning
Federal Trade Commission
600 Pennsylvania Avenue NW
Washington, DC 20580

Re: *Competition and Consumer Protection in the 21st Century Hearings, Hearing Number Eight (Docket ID: FTC-2018-0107)*

Dear Mr. Sayyed:

The Investment Company Institute (ICI)[1] appreciated the opportunity to meet with you and other Federal Trade Commission (FTC) staff to discuss the "common ownership hypothesis"—the notion that institutional investors holding non-controlling stakes in competing companies in concentrated industries can decrease competition among those companies, leading to competitive harms, such as higher prices to consumers. This letter responds to questions you and other FTC staff posed during our meeting regarding flaws in the academic research supporting the common ownership hypothesis and, in particular, the academics' misconceptions about the role and incentives of investment advisers.

As we have described previously, the research supporting the common ownership hypothesis rests on: (1) misunderstandings and misinformation about the asset management industry; (2) incorrect assumptions about the incentives of advisers and their clients; and (3) flawed empirical work.[2] Despite these flaws, proponents of the common ownership hypothesis have urged policymakers to take drastic, unwarranted, and misguided actions that would impair the ability of millions of Americans to save for

[1] ICI is the leading association representing regulated funds globally, including mutual funds, exchange-traded funds, closed-end funds, and unit investment trusts in the United States, and similar funds offered to investors in jurisdictions worldwide. ICI seeks to encourage adherence to high ethical standards, promote public understanding, and otherwise advance the interests of funds, their shareholders, directors, and advisers. ICI's members manage total assets of US$23.5 trillion in the United States, serving more than 100 million US shareholders, and US$6.9 trillion in assets in other jurisdictions. ICI carries out its international work through ICI Global, with offices in London, Hong Kong, and Washington, DC.

[2] *See* Letter from Sean Collins, Chief Economist, ICI, and Susan Olson, General Counsel, ICI, to Donald Clark, Secretary, FTC, dated August 20, 2018, at 3, *available at* https://www.ici.org/pdf/18_ici_common_ownership_ltr.pdf (ICI August 2018 Letter). *See also* Letter from Sean Collins, Chief Economist, ICI, and Susan Olson, General Counsel, ICI, to Donald Clark, Secretary, FTC, dated January 15, 2019, *available at* https://www.ici.org/pdf/31568a.pdf (ICI January 2019 Letter).

their long-term financial goals.[3] Mutual funds provide households of all ages and income levels with access to low-cost, professionally managed, and diversified investment portfolios. Over the past four decades, the portion of US households that own mutual funds has grown from fewer than 10 percent to more than 40 percent.[4] At the end of 2018, 56 million US households owned mutual funds, and half of these households had incomes below $100,000.[5] The FTC should not rely on deeply flawed research as the basis for a change in competition policy that would hurt these American families.

This letter builds upon our prior letters in three ways. First, we provide further analysis of the fiduciary duties that govern an investment adviser's activities and explain how they limit the ability of investment advisers to act in ways that might benefit some clients at the expense of others. Second, we demonstrate that proponents of the common ownership hypothesis make unrealistic assumptions about the incentives of asset managers and their clients. Specifically, we show that diversified clients—such as index funds—would not necessarily benefit from higher airline ticket prices and demonstrate that investment advisers to these funds would not realize a material financial benefit from urging airline companies to increase their fares. Third, we explain that corporate managers likely could not determine independently which competitive strategy would most benefit common owners or their advisers.

## I. Fiduciary Duties Influence the Behavior of Investment Advisers and Discredit Potential Mechanisms Through Which Common Ownership Might Affect Prices

Proponents of the common ownership hypothesis inaccurately portray investment advisers as asset owners by asserting, for example, that certain large advisers own minority interests in each of the major airline companies.[6] These statements are incorrect. Investment advisers are fiduciaries that manage client investments in airline stocks and many thousands of other securities. Advisers frequently make security selections on behalf of a wide array of different clients, including mutual funds, other types of

[3] *See id.*

[4] *See* Sarah Holden, "Mutual Funds: Rated E for Everyone," *ICI Viewpoints* (December 12, 2018), *available at* https://www.iciglobal.org/viewpoints/view_18_mf_ownership.

[5] 2019 Investment Company Factbook at 137, *available at* https://www.ici.org/pdf/2019_factbook.pdf. More than 49 million households owned equity mutual funds.

[6] As described in the ICI August 2018 Letter, *supra* note 2, the securities laws require some investment advisers to file quarterly reports containing aggregated data about client holdings under certain conditions. Proponents of the common ownership hypothesis have relied on data derived from these reports even though the aggregation is based on an adviser's *investment discretion* over its clients' accounts, not economic ownership or even voting discretion. Accordingly, these reports do not provide information about the economic ownership of securities, which often belong to an array of clients whose investment objectives and portfolio holdings may differ substantially.

pooled investment vehicles, and separate accounts. Each client owns a distinct pool of assets and participates in the economic risks and rewards only of the assets that it owns.[7]

The investment adviser is a fiduciary to its clients and, in this capacity, owes *each client* independently a duty of care and a duty of loyalty. These fiduciary duties obligate advisers to place their clients' interest above their own and to act in the best interest of each client. The Supreme Court has recognized the fiduciary nature of an investment advisory relationship and found that an adviser's fiduciary obligations are enforceable under the Investment Advisers Act of 1940 (Advisers Act).[8] The Securities and Exchange Commission (SEC) recently has emphasized the client-specific nature of these fiduciary duties in proxy voting guidance to investment advisers.[9]

The literature advancing the common ownership hypothesis fails to recognize the nature of the adviser/client relationship, the diversity of these relationships and client objectives, or the importance of advisers' fiduciary duties to their clients. Some papers, for example, have suggested that investment advisers might use proxy voting or meetings with corporate management as mechanisms to influence the competitive strategy of companies held in client portfolios.[10] The SEC, however, has made clear that the fiduciary duties of care and loyalty extend "to all services undertaken on the client's behalf, including proxy voting," and that an "adviser must cast the proxy votes in a manner consistent with the best interest of its client and must not subrogate client interests to its own."[11] An adviser that votes a client's shares in a manner intended to benefit the adviser or other advisory clients at the expense of

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[7] If the client is a collective investment vehicle, like a mutual fund, the client's investors participate in the gains or losses of the vehicle. In the case of a mutual fund, the fund (*i.e.*, the client of the investment adviser) owns a portfolio of assets, investors own a pro rata share of the fund, and the investment adviser manages the fund as described in the fund's prospectus. *See* ICI August 2018 Letter, *supra* note 2 at 3-11 (describing the relationship between investment advisers and their clients and the various services that advisers provide to clients).

[8] *SEC v. Capital Gains Research Bureau, Inc.*, 375 U.S. 180, 191 (1963). The SEC has adopted a series of antifraud rules under Section 206(4) of the Advisers Act, including Rule 206(4)-8, which prohibits advisers from defrauding investors and prospective investors in pooled investment vehicles.

[9] *Commission Guidance Regarding Proxy Voting Responsibilities of Investment Advisers*, SEC Release No. IA-5325 (Aug. 21, 2019), available at www.sec.gov/rules/interp/2019/ia-5325.pdf (stating that "where an investment adviser undertakes proxy voting responsibilities on behalf of multiple funds, pooled investment vehicles, or other clients, it should consider whether it should have different voting policies for some or all of these different funds, vehicles, or other clients, depending on the investment strategy and objectives of each.").

[10] José Azar, Martin C. Schmalz, and Isabel Tecu, *Anticompetitive Effects of Common Ownership*, 73 Journal of Finance 1513 (2018) ("Airline Paper").

[11] *Proxy Voting by Investment Advisers*, SEC Release No. IA-2106 (Jan. 31, 2003), *available at* www.sec.gov/rules/final/ia-2106.htm ("[A]n adviser is a fiduciary that owes each of its clients duties of care and loyalty with respect to all services undertaken on the client's behalf, including proxy voting. The duty of care requires an adviser with proxy voting authority to monitor corporate events and to vote the proxies. To satisfy its duty of loyalty, the adviser must cast the proxy votes in a manner consistent with the best interest of its client and must not subrogate client interests to its own.").

that client risks violating its fiduciary duty and, consequently, suffering reputational and pecuniary harm.[12]

These fiduciary duties have three significant implications for the common ownership hypothesis. First, academic papers that purport to find a correlation between price effects and the level of common ownership in an industry are fundamentally flawed because, among other things, they measure the level of common ownership (e.g., "MHHI delta") at the investment-adviser or fund-family level instead of looking at the level of concentration among actual owners of the shares. This methodology erroneously assumes that the interests of the investment adviser's clients become homogenized or subsumed into the incentives of the adviser simply because the clients (*i.e.,* the stock *owners*) choose the same adviser to manage their investments. This error permeates the empirical work of the scholarship advancing the common ownership hypothesis.

Second, the investment advisers' fiduciary duties cast serious doubt on the possibility that an "active" mechanism might link common ownership to higher prices. Some proponents of the common ownership hypothesis theorize, for example, that investment advisers use board elections, communications with management, non-binding votes on executive compensation, share divestitures, or other direct actions to influence corporate managers to raise consumer prices. Even if one were to ignore other problems with these theories, including the indirect and overly blunt nature of the proffered means of influence on day-to-day competitive decision making by the issuer, the investment adviser's fiduciary duties provide a strong incentive not to take any action that would harm clients holding investments in complementary sectors, who could be adversely affected by a price increase or other action that reduces demand or output in the subject sector.

Third, the investment adviser's fiduciary duties make implausible the "passive" mechanism that proponents have argued might link common ownership and higher prices. Proponents who espouse these theories argue that company management will naturally seek to maximize the portfolio returns of common owners instead of maximizing own-firm profits and that this will cause the firm to compete less aggressively against companies held by common owners. As detailed below, the calculus required to determine the competitive strategy of a company that would achieve optimal returns (either for

[12] A number of papers have raised questions about the plausibility of a common owner using proxy voting or other forms of corporate engagement to influence the competitive strategy of portfolio companies. *See* C. Scott Hemphill and Marcel Kahan, *The Strategies of Anticompetitive Common Ownership* (August 1, 2018), NYU Law and Economics Research Paper No. 18-29, at 42, *available at* https://ssrn.com/abstract=3210373 (concluding that "for most mechanisms, there is no strong theoretical basis for believing that institutional [common owners] would want to employ them, no significant evidence suggesting that they do employ them, or both.") This paper also explains that an advisers' clients, which may include many different mutual funds and other types of clients, each may own different stakes in competing companies. Any strategy that leads to a reduction in the value of one portfolio company for the benefit of other companies in the portfolios managed by the adviser likely would not be in the best interest of some of the adviser's clients. Accordingly, from the perspective of fiduciary duty, the adviser's safest option is to vote in a way designed to maximize the value of a portfolio company. *See id.* at 38-39.

investment advisers or their clients) across heterogeneous portfolios of thousands of clients is, at best, extremely complex and more likely operationally impossible. The role of the investment adviser as a common manager for its clients' investments does not make the math problem more tractable.

## II. Assertions that Common Shareholders or Their Advisers Would Condone Reduced Competition Among Portfolio Companies Are Implausible

Proponents of the common ownership hypothesis make a fundamental error in treating investment advisers as shareholders.[13] As described above and in our two prior letters, investment advisers *manage* assets on behalf of asset *owners*, and a large adviser works on behalf of many thousands of clients with different investment goals.[14] Aggregating the stock holdings of these disparate clients at the adviser level creates the misimpression that an adviser and its clients are a monolithic whole that would benefit financially from less competition "because less competition will increase share prices."[15]

For example, proponents of the common ownership hypothesis assume that higher airline ticket prices will translate into higher airline stock prices and that higher airline stock prices would benefit all institutional investors that own shares in competing airlines. These assumptions are unwarranted for at least two reasons. First, the proponents fail to take into account the broad diversity among client portfolios. Clients benefit only if prices rise for stocks that they own. A client that holds no airline stocks would not benefit from higher airline stock prices and might be harmed if other stocks in its portfolio decline as a result of higher air fares. For example, a client that holds an oil company stock and no airline stocks might be harmed if the demand for jet fuel declines because higher airline ticket prices result in fewer flights. Similarly, a client that holds airline stocks as part of a diversified portfolio would not benefit from higher airline ticket prices if higher ticket prices hurt the non-airline portion of the client's portfolio more than they boost the client's airline stocks. Second, the assumptions fail to recognize the distinction between investment advisers and their clients. Just as a strategy to increase the price of airline stocks would not necessarily benefit a client (due to the impact on the client's other investments), such a strategy would not necessarily result in increased revenues for the adviser. We describe each of these errors in more detail below, using airline stock prices and hypothetical client portfolios to illustrate the flaws.

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[13] The Airline Paper, for example, "aggregate[s] holdings at the fund-family level" for purposes of determining the "shareholders" in airline companies. The paper incorrectly characterizes the decision to aggregate as "match[ing] the institutional feature of voting and governance at the family level, as well as fund families' incentives, which—consistent with the incentives of their investors—are determined primarily by the value of their total assets under management." *See* Airline Paper, *supra* note 10 at 1525-1526.

[14] *See* ICI August 2018 Letter, *supra* note 2 at 3-7.

[15] *See* Eric A. Posner, Fiona Scott Morton, and E. Glen Weyl, *A Proposal to Limit the Anti-Competitive Power of Institutional Investors* (March 22, 2017) at 8, *available at* https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2872754.

### A. Diversified Clients Would Not Necessarily Benefit from Higher Airline Ticket Prices

Proponents of the common ownership hypothesis fail to recognize that stock prices do not move in a vacuum. To the contrary, stock prices go up and down in response to a variety of factors, including fundamental economic data with implications for the broader economy. Factors that cause companies in one industry to do well—and cause the stocks of companies in that industry to rise—might adversely impact companies in another industry—and cause stocks of those companies to fall. In particular, lower output in one industry may reduce the demand for another industry's output.

The proponents of the common ownership hypothesis seem to assume that all airline investors would benefit from higher airline ticket prices if airline companies adopt a less competitive pricing strategy. But investors—and mutual funds in particular—tend to hold diversified portfolios that span a broad range of industries and companies. The proponents fail to consider that higher airline ticket prices might produce headwinds for other parts of a diversified portfolio. For example, adopting a less competitive pricing strategy, all else equal, implies higher airline ticket prices and lower passenger volume. Lower passenger volume, in turn, will reduce the demand for services and products of firms in adjacent industries which leads to lower profits and valuations for those firms. The analysis required to determine whether higher airline ticket prices would benefit or harm an investor's entire portfolio must be conducted at the client level (rather than the adviser level) because each client cares only about the returns of its portfolio and is indifferent to the returns of its adviser's other clients.

As noted above, however, the Airline Paper uses adviser-level data—*i.e.*, data showing the aggregated holdings of advisers' clients. It is not possible to discern from these aggregated data whether an individual client might prefer fierce or soft competition within the airline industry. This is a serious flaw because the crux of the common ownership hypothesis is that corporate managers will: (1) infer that common minority shareholders would benefit from reduced competition and (2) individually implement such a strategy to curry favor with these shareholders.

Proponents of the common ownership hypothesis provide no evidence that knowing the identity of a shareholder's adviser conveys information about the competitive strategy that the shareholder would prefer. To the contrary, scholars that have analyzed client-level data have found that clients of investment advisers "would have divergent preferences as to whether the airlines should maximize industry or own-firm profits and, if the latter, which airline's profits should be maximized."[16] These researchers demonstrate that only clients that hold relatively equal stakes in a broad range of airline companies potentially fit the model of the common ownership hypothesis—*i.e.*, *might* benefit from

[16] *See* Thomas A. Lambert and Michael E. Sykuta, *The Case for Doing Nothing About Institutional Investors' Common Ownership of Small Stakes in Competing Firms*, University of Missouri School of Law Legal Studies Research Paper No. 2018-21 (December 2018) at 24, *available at* https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3173787.

airline companies maximizing industry profits. Other clients would prefer competitive strategies that aim to maximize the profits and stock prices of the firms that they own, without regard to other firms.

The mere fact that a client holds (perhaps relatively equal) stakes in competing airlines does not mean the client would have an economic interest in soft competition. If, for instance, the client also holds stakes of companies that tend to do poorly when airline ticket prices rise, the client might prefer that airlines compete vigorously and keep ticket prices low.

Evidence demonstrating these negative effects on other holdings can be found by studying correlations between airline passenger volumes and the stock prices of non-airline industries. ICI analyzed the strength and the direction of relationships between aggregate airline passenger volume and the stock returns in other industries and found that, during the period examined in the Airline Paper, a decrease in aggregate passenger volume (which would be expected if airlines raised prices) is associated with less favorable stock returns in over half of the industries in the S&P 500 index (Figure 1).

In the figure, each bubble represents a particular industry (as classified under the four-digit North American Industry Classification System, NAICS). The size of the bubble is proportional to the industry's weight in the S&P 500 index at the end of 2014 (the end of the Airline Paper sample period). For readability, the horizontal axis sorts the industries by NAICS code; the horizontal axis is otherwise unimportant.

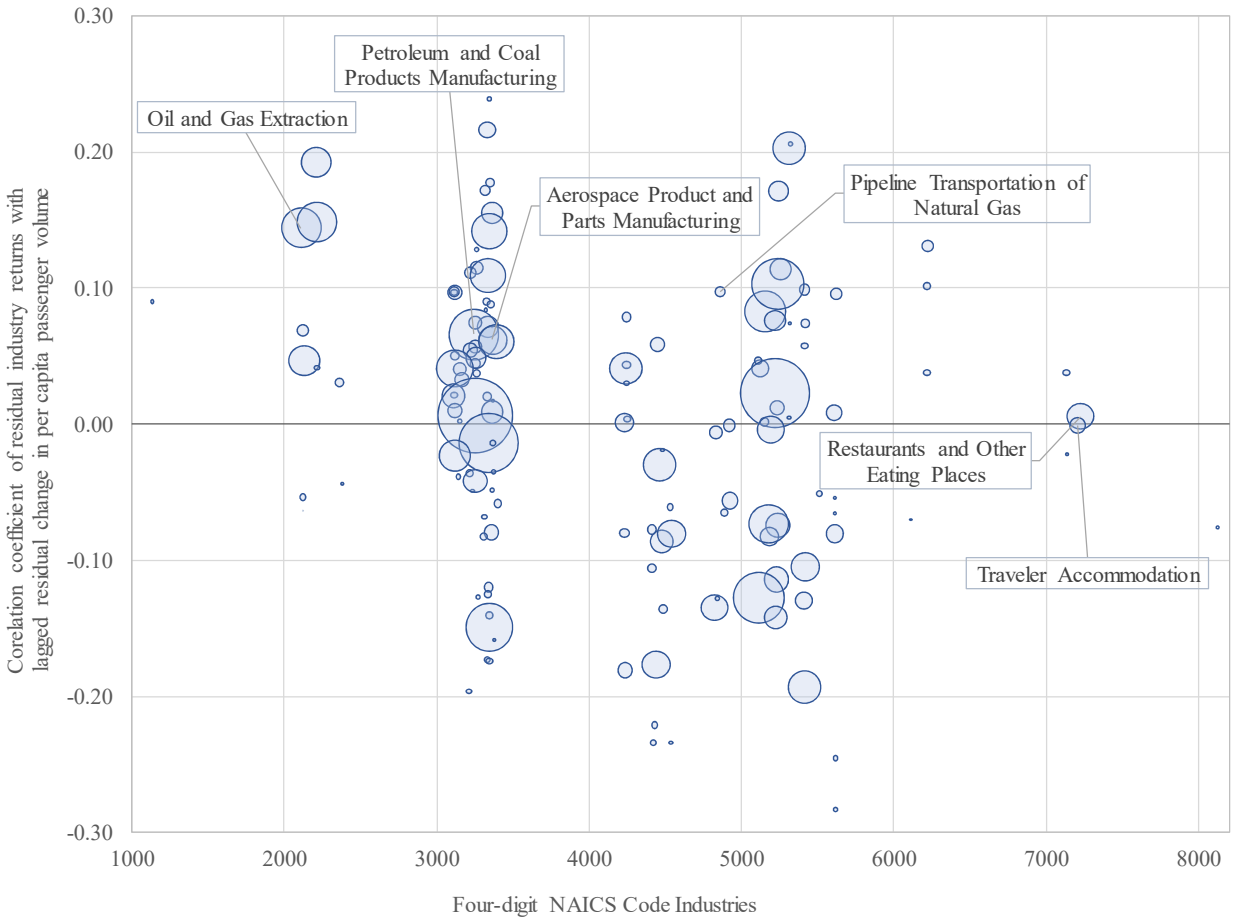
The vertical axis in the figure shows the relationship (statistical correlation) between aggregate airline passenger volumes and industry-specific stock returns. All points above the horizontal line at 0.00 are industries where airline passenger volumes and stock returns rise and fall in the same direction. Thus, if passenger volumes fall (because airlines raise prices), industries above the 0.00 line suffer lower stock returns. Put differently, the analysis suggests that all else equal, shareholders in industries above the 0.00 line would prefer to see airlines *cut* prices.

For over half of the industries (79 out of 144) represented in the S&P 500, the bubbles lie above the 0.00 horizontal line. These are industries where a decline in airline ticket volumes has historically been associated with falling stock returns.[17] The figure highlights a number of relevant points lying above the horizontal line, notably industries that are associated with the production of jet fuel and aircraft manufacturing.

Many of these industries constitute a more significant share of the S&P 500's market capitalization than airlines. As a matter of fact, industries where falling airline passenger volumes are associated with negative industry stock returns (*i.e.*, the bubbles above the 0.00 horizontal line) accounted for more than 60 percent of the market capitalization of the S&P 500 as of 2014.

[17] The stock returns in each industry are measured as "excess returns," that is returns over and above those in the overall stock market. This helps ensure that the results in Figure 1 do not arise simply from overall changes in the stock market.

**Figure 1: Lower Airline Passenger Volumes Are Correlated with Lower Stock Returns in Other Industries**




Each bubble represents the pairwise correlation between industry-specific excess stock returns in a four-digit NAICS industry and the change in airline passenger per capita volume independent of changes in economic conditions. The size of a bubble represents the relative aggregate market capitalization of a given industry in the S&P 500 at the end of 2014. The correlations are ordered along the x-axis by four-digit NAICS codes.

Put simply, a strategy of pricing airline tickets less competitively (*i.e.*, raising ticket prices) could undermine any benefits diversified investors might receive from increases in airline stock prices (which comprise less than one percent of the S&P 500 index). That means, contrary to what the Airline Paper implies, managers of airline companies cannot simply assume that their common shareholders have "anticompetitive incentives" to prefer cartel-like airline ticket pricing practices.[18] Appendix A contains more information about this analysis.

[18] *See* Airline Paper, *supra* note 10 at 1518.

### B. Concerns that Investment Advisers Would Benefit from Reduced Competition Among Portfolio Companies Are Misplaced

Proponents of the common ownership hypothesis also have suggested that managers of commonly-held firms cater to the wishes of investment advisers and that these advisers would benefit from soft competition even if their clients would not.[19] This suggestion implies, among other things, that the potential financial gain the adviser could realize from pursuing this type of strategy would outweigh the associated reputational and legal risks.

This view is unrealistic, as simple exercises demonstrate. First, as described in more detail below, the adviser to an S&P 500 index fund with industry average fees and assets under management would receive only an additional $806 in management fees annually if airline stock prices rose by 4 percent, and even this small increase requires one to assume that the rise in airline stocks had no other impacts on the fund's portfolio. This amount is immaterial to the overall advisory fee and in no way could incent an adviser to act in the way envisioned by the proponents of the common ownership hypothesis. Furthermore, accounting for potential impacts to other stocks in the portfolio—a factor the adviser must consider—could reduce this potential gain in the management fee. For example, if higher ticket prices reduce airline passenger volumes, profits (and share prices) could fall in industries that serve airlines.

Second, even setting aside the issue of financial incentives, before an investment adviser could communicate a desired strategy to corporate managers, it first would need to determine its own competitive preference. Making this determination would involve assessing the holdings and fee structures of each of its numerous and diverse clients to determine how changes to competitive strategy would affect portfolio returns and adviser compensation,[20] quantifying the potential gains and risks associated with the strategy as well as the costs associated with implementing the strategy, and then, if a clear strategy could be found, attempting to implement it.

The adviser also would need to assess whether the strategy, even if successful, could benefit a competitor at the adviser's expense. If, for example, the competitive strategy pursued by Adviser A results in superior performance for the clients of Adviser B, clients might leave A in favor of B.[21] Much of this data is not available publicly, which makes it impossible for any third party (including corporate managers) to precisely assess an adviser's financial interest.

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[19] *See* note 13, *supra* and affiliated text.

[20] *See* Lambert and Sykuta, *supra* note 16 at 27-29 (arguing that adviser profits would be favorably impacted by vigorous competition among airlines, because funds with higher fees tend to have less common ownership of airlines than lower fee funds).

[21] *See* note 28, *infra*, citing research finding that positive returns of a fund lead to inflows.

### *A Simple Hypothetical*

Although it is not possible to conduct a complete assessment of the potential financial impacts of increased common ownership on an investment adviser's profits, it is possible to estimate how much an adviser to a single, hypothetical index mutual fund might benefit from urging airline managers to pursue a competitive strategy that fits the model of the common ownership hypothesis, *i.e.*, one designed to maximize industry profits by reducing competition and increasing air fares.

Investment advisers manage assets owned by their clients. Many clients, including registered funds, typically compensate their investment adviser by paying a management fee, which is expressed as a percentage of the client's assets under the adviser's management. At the end of 2018, the average expense ratio for an equity mutual fund was 55 basis points, and the average fee for an index equity mutual fund was even lower, 8 basis points.[22] This means that, on average, an investment adviser receives $0.08 annually for every $100 investment in the equity index funds it manages.

Proponents of the common ownership hypothesis have argued that advisers to index funds are some of the most prolific common "owners" of airline stocks, but the low fees associated with index funds provide scant incentives for fund advisers to attempt to influence the competitive strategies of portfolio companies. To understand the magnitude of these incentives, assume that there is an S&P 500 index fund of average size—$6.3 billion in assets[23]—that charges an industry-average 8 basis point fee. The adviser would earn $5,040,000 annually for managing this fund.[24] As of June 24, 2019, airline companies comprised 0.4 percent of the S&P 500 index, which means they would make up $25.2 million of the fund's assets and would contribute $20,160 to the adviser's fee.[25] Assume, as the Airline Paper contends, that common ownership raises the cost of airline tickets by (approximately) 4 percent. Assuming further that this raises airline stock prices 4 percent and causes no offsetting impacts elsewhere in the fund's portfolio, the rise in airline ticket prices would generate an additional $806 of revenue for the fund's adviser, which would be roughly 0.016 percent of its total management fee.[26, 27]

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[22] *See* 2019 Investment Company Fact Book at 123, *available at* https://www.ici.org/pdf/2019_factbook.pdf. These figures are at an annual rate.

[23] In 2018, the size of the average index equity mutual fund was $6.3 billion. *See id.* at 122.

[24] We calculate the management fee as follows: $6,300,000,000 * 0.0008 = $5,040,000.

[25] We calculate the dollar value of the airline stocks in the portfolio by multiplying the total size of the fund by the percentage of the fund held in airline stocks: $6,300,000,000 * 0.004 = $25,200,000. We calculate the management fee applicable to airline stocks by multiplying the dollar value of the airline stocks in the fund's portfolio by the management fee: $25,200,000 * 0.0008 = $20,160.

[26] The value of the fund's airline holdings would rise to $25,200,000 * 1.04 = $26,208,000, creating additional fee income of $806.40, calculated as follows: 0.0008 * ($26,208,000 – 25,200,000) = $806.40.

[27] If the example were repeated using 2014 data (to correspond with the end of the period studied in the Airline Paper), the 4 percent rise in airline ticket prices would generate a bit more additional fees, $1,624 instead of $806. At the end of 2014, the average equity index fund had $5.0 billion in assets and charged a fee of 11 basis points. *See* 2015 Investment Company

In reality, however, as described above, the reduction in passenger volume that corresponds to a 4 percent increase in airline ticket prices results in lower valuations for stocks in some other industries. We calculate that these lower valuations would more than offset the rise in fees received from higher airline stock prices. Specifically, the loss in the value of the S&P 500 portfolio would be 0.0334 percent, which would result in a *decrease* of total fees by $1,683.[28] An advisor plainly would have no interest in urging executives of portfolio companies to pursue a competitive strategy that would harm the advisor (and, potentially harm its clients as well, as described above).

Still, even if an advisor focused on airline stocks in a vacuum and the potential to earn a higher fee as a result of those stocks going up, $806 is not material to the adviser's management fee for running this hypothetical average index fund. Further, it is not clear how the investment adviser—let alone corporate executives—would even identify the optimal competitive strategy for the adviser's business, nor could the adviser expect the $806 additional management fees to cover the costs it would incur to identify and communicate this preferred strategy to managers of airline companies. Consequently, as illustrated above, the adviser would have no incentive to attempt to influence a portfolio company's competitive strategy as some proponents of the common ownership hypothesis assert.

## III. Corporate Managers Likely Could Not Intuit Which Competitive Strategy Common Owners Would Prefer

The extreme complexity associated with assessing the competitive strategy that would benefit shareholders—whether at the client or adviser level—casts serious doubt on the fundamental premise of the common ownership hypothesis: that corporate managers know who their shareholders are and will naturally, even without prompting by an investment adviser or the common owners themselves (*i.e.* the adviser's clients), determine the competitive strategy that would maximize returns for those shareholders.[29]

This theory of a passive effect on management's unilateral incentives to raise prices in response to common ownership is a gross extrapolation from analyses of partial-ownership acquisitions or "cross

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Fact Book at 98-99, *available at* https://www.ici.org/pdf/2015_factbook.pdf. With the airline companies comprising 0.7 percent of the S&P 500 index at the end of 2014, the value of a fund's airline holdings was $36,908,000. The gain in management fees would have been $1,624, calculated as follows: 0.0011 * $36,908,000 * 0.04.

[28] See analysis in the appendix for the calculation of the loss. The change in the overall fee is calculated as follows: 6,300,000,000 * (−0.0334%) * 0.0008 = −$1,683. Using the parameters at the end of 2014, the change would be −$1,835.

[29] *See e.g.,* Einer Elhauge, The Causal Mechanisms of Horizontal Shareholding, (Aug. 2, 2019) *available at* https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3370675&download=yes ("With common ownership, single-firm profit-maximization is compromised by the fact that the corporation is to some extent influenced by common shareholders who are also interested in the profits of other corporations. When the commonly-held corporations are horizontal competitors in the same product market, this increased interest in the profits of competitors will naturally lessen their incentives to compete with each other.").

ownership" scenarios in which a single firm has a partial ownership interest in a single competitor.[30] In such simple scenarios, the incentives of the single competing common owner may be clear to management of the firms, and they may be able to modify their performance to maximize joint returns instead of maximizing own-firm profits.

The calculus, however, is far more complex in the institutional investor context addressed by the proponents of the common ownership hypothesis.[31] Before corporate managers could run a business in a manner that would maximize the returns of common shareholders over own-firm profits, corporate managers first would need to determine whose interests to prioritize (*e.g.*, those of investment advisers, clients, other investors) and the nature of those interests. The calculus would need to consider: (1) the importance of the company to the performance of each common owner's investment portfolio; (2) the nature of the interests that the common owner holds in the company's rivals; (3) the nature of the interests that the common owner holds in companies in other industries that might be impacted by a price increase or other reduction in competition; and (4) how a decrease in competition would impact the stock price of each relevant company. Such information is likely not publicly available with respect to (1)-(3) and with respect to (4), as our appendix demonstrates, challenging to estimate even at the industry level. This information would (5) need to be compiled for each common owner and (6) net effects would have to be balanced across each to identify the optimal strategy.

Because investment advisers are fiduciaries for their clients, the calculus is not different simply because the clients' investments are managed by a common investment adviser. This is especially true when considering that investors split their investments across funds, which might be managed by the same adviser or by different advisers. Knowing that an investment adviser manages a fund that holds a position in more than one company in the sector is only the start of the analysis. It does not alleviate the complexity of steps (1)-(6) above.

Moreover, for the common ownership hypothesis to hold, all companies in the same industry must agree to maximize industry profits. If not, some managers in the industry could be raising prices while others are lowering them, a completely different competitive dynamic than posited by the common ownership hypothesis.

In addition, corporate management is subject to their own fiduciary duties in which they cannot manage the company in a way that subordinates the interests of their shareholders that own no stakes in competing firms to the interests of shareholders that also hold stakes in competing firms. For all of these reasons, the passive effects on corporate management's incentives that might be plausible in a

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[30] *See* Steven C. Salop and Daniel P. O'Brien, Competitive Effects of Partial Ownership Financial Interest and Corporate Control 67 Antitrust L.J. 559 at 597 (2000) (explaining the original theory of partial ownership).

[31] *See* Daniel P. O'Brien and Keith Waehrer, The Competitive Effects of Common Ownership: We Know Less than We Think, 81 Antitrust L.J. 729 (2017) (explaining the disconnect between the proponents of the common ownership hypothesis and the original partial-ownership theory).

"cross-ownership" context are not plausible and cannot be extrapolated to the far more complex and heterogeneous context of common ownership.

The Commission need not rely on theoretical discussions by academics, and no new industry investigation is required to understand the truth of the above. The Commission is already well-positioned to determine whether corporate managers engage in the hypothesized conduct of considering common-owner portfolio returns over own-firm profits when setting competitive strategy for their companies. Documents submitted in Hart Scott Rodino Act filings and subsequent investigations, and through responses to Civil Investigative Demands have provided the FTC with decades of regular access to corporate strategy documents, financial planning models, and other commercial forecasts, budgets, and profitability modeling, including in concentrated industries.

If corporate managers do, in fact, alter their competitive strategy to account for how their actions might impact the portfolio returns of common owners, including regulated funds or other investment vehicles, one would expect to see evidence of this in corporate strategy documents. Financial models would include assumptions about the impact of proposed actions of the profits of competing firms held by common owners. Proposals for pricing strategies, new product launches, production increases, or capacity additions might include a slide or two to confirm that such actions do not undermine the total returns of common owners. The lack of such evidence in the thousands of corporate strategy and financial planning documents made available to the FTC in its ordinary course of antitrust enforcement should confirm to the FTC the plain truth that common ownership does not change management incentives in the ways asserted by the proponents of the common ownership hypothesis.

* * *

If you have any questions on our comment letter, please feel free to contact Sean Collins, Chief Economist, at sean.collins@ici.org or (202) 326-5882; Christof Stahel, Senior Economist, at christof.stahel@ici.org or (202) 326-5917; or Susan Olson, General Counsel, at (202) 326-5813 or susan.olson@ici.org.

Sincerely,

/S/

Sean S. Collins
Chief Economist

/S/

Susan M. Olson
General Counsel

cc: The Honorable Joseph J. Simons
The Honorable Noah Joshua Phillips
The Honorable Rohit Chopra
The Honorable Rebecca Kelly Slaughter
The Honorable Christine S. Wilson

Mr. Bruce Hoffman, Director, Bureau of Competition
Mr. Alden Abbott, General Counsel

**Appendix: Many investors in the S&P 500 would prefer that airlines not set prices above competitive levels because the lower airline passenger volume associated with such a pricing strategy reduces demand in adjacent industries and thereby lowers stock prices in those industries, affecting the overall performance of those investors' portfolios.**

An investor who holds two stocks may or may not gain if the price of one stock rises. Often, the economic conditions that cause companies in one industry to do well—and cause the stocks of those companies to go up—can cause companies in other industries to do poorly (and, similarly, can cause the prices of those companies' stocks to fall). By extension, if an investor holds an S&P 500 index fund, better performance of the five airline stocks in the S&P 500 might or might not be associated with an overall rise in the S&P 500 itself.[32]

In the case of airlines, higher ticket prices could lead to lower stock prices in other industries. For example, although higher ticket prices might raise prices of airline company stocks, they would also reduce passenger volumes. As passenger volumes fall, other industries, for example jet fuel manufacturers, that provide goods and services to airlines could see a fall in demand. As a result, those companies might see their stock prices fall. In short, for an investor who holds a diversified portfolio, higher airline ticket prices might result in no overall net benefit. The appendix provides evidence of this using companies in the S&P 500.

**Methodology**

We want to estimate how a rise in airline ticket prices might affect the prices of stocks in non-airline industries. We do this as follows.

First, using a standard market model, we extract from industry stock returns the component that is independent of the overall market and the risk-free rate:

$$xr_{it} = \alpha_i + \beta_i xr_{R3,t} + \epsilon_{it} \qquad (1)$$

where $xr_{it}$ is industry *i*'s stock return net of the risk-free rate in month *t* and $xr_{R3,t}$ is the return of the Russell 3000 net of the risk-free rate in month *t.* The industry stock return is the market capitalization-weighted average stock return for a given industry (the weights are given by the previous month-end market capitalization of each stock in the industry). Using monthly data, we estimate equation (1) industry-by-industry from January 2000 to December 2014, the sample period used by the Airline Paper. The error term $\epsilon_{it}$ ("excess return") in equation (1) is the industry-specific component of the industry return that is independent of the overall market and the risk-free rate.

[32] The five airline stocks in the S&P 500 index are Alaska Airlines, American Airlines, Delta Air Lines, Southwest Airlines, United Airlines.

Second, using monthly data for the same period, we estimate the change in airline passenger volume that is unrelated to economic conditions. We do this by regressing the change in monthly aggregate airline passenger volume per capita, denoted $rpcv_{At}$, on several macroeconomic variables:

$$rpcv_{At} = \alpha_A + \beta_R r_{R3,t} + \beta_R rjf_t + \beta_G rgdp_t + \delta^{Sep01} Sep_t + \delta^{Oct01} Oct_t + \delta' M_t + \epsilon_{At} \qquad (2)$$

These macroeconomic variables are: the return on the Russell 3000 ($r_{R3,t}$), the percentage change in jet fuel prices ($rjf_t$), and the percentage change in US GDP ($rgdp_t$). We include two dummy variables, $Sep_t$ and $Oct_t$ for September and October 2001 to adjust for 9/11 effects. We also include monthly dummy variables $M_t$ to capture seasonal effects. The error term $\epsilon_{At}$ is the change in airline passenger volume per capita that is unrelated to economy-wide conditions.

Third, we calculate the correlation coefficient:

$$\rho_i = correlation(\epsilon_{it}, \epsilon_{A,t-1}) \qquad (3)$$

between the excess stock returns for each industry and change in airline passenger volume (lagged one month) that is unrelated to economy-wide conditions. We do this for each non-airline industry in the S&P 500. We identify an "industry" using four-digit North American Industry Classification System (NAICS) codes. We use the lagged residual $\epsilon_{A,t-1}$ to reduce concerns about reverse causality.

**Findings**

We were able to calculate $\rho_i$ for 144 industries (Figure A.1). For 79 industries, excess returns are positively correlated with changes in airline passenger volumes. For these 79 industries, if airline passenger volume falls, stock prices would be expected to *fall*.

One example is Petroleum and Coal Products Manufacturing, which transforms crude petroleum into component products including jet fuel. At the end of 2014, it constituted 3.6 percent of the market capitalization of the S&P 500.

Another example is Aerospace Product and Parts Manufacturing, which comprises aircraft and aircraft engine manufacturers, as well as companies that convert, overhaul or rebuild aircraft. At the end of 2014, it comprised 1.2 percent of the market cap of the S&P 500.

In both cases, the stock prices of these industries are expected to fall when airline passenger volumes decline.

**Figure A.1: Correlation between Airline Passenger Volumes and Stock Returns in Other Industries**


Each bubble represents the pairwise correlation between industry-specific excess stock returns in four-digit North American Industry Classification System (NAICS) industry *i* and the change in airline passenger per capita volume independent of changes in economic conditions. Industry-specific excess stock returns are the residuals from regressing industry-by-industry returns (above the risk-free rate) on the return of the Russell 3000 index (also above the risk-free rate). The change in airline passenger per capita volume independent of changes in economic conditions are the residuals from regressing the change in airline passenger per capita volume on the return of the Russell 3000 index, the relative change in jet fuel prices, the relative change in GDP, monthly dummy variables and two variables representing the drop and rebound of passenger volume September 2001 and October 2001. The size of a bubble represents the relative aggregate market capitalization of a given industry in the S&P 500 at the end of 2014. The correlations are ordered along the x-axis by four-digit NAICS codes.

## If Airline Ticket Prices Increase 4%, What Happens to the Value of a Funds' Portfolio?

In the example on page [11], we indicate that if airline ticket prices rise by 4 percent, the net the value of the S&P 500 portfolio would decline 0.0334 percent.

How so? If one assumes that the prices of other stocks in the S&P 500 do not rise or fall as airline ticket prices rise, the value of the portfolio should rise by the increase in the share prices of airlines (which by assumption also rise 4 percent) times the share of airlines in the S&P 500 (which is 0.4 percent). Thus, all else equal, the value of the S&P 500 portfolio should rise by 0.0160 percent (0.4% * 4%).

But as Figure A.1 indicates, when airline passenger volumes fall, which is to be expected if airline ticket prices rise, the prices of other stocks in the S&P 500 may adjust. While some will rise, others (such as those of energy-related companies) will fall. Assuming that the increase in airline ticket prices results in a reduction in passenger volume of 4 percent, the spillover effect changes the value of non-airline firms in the S&P 500 by −0.0494 percent (−4% * 0.01234).[33] Thus, a 4 percent increase in airline ticket prices results in a change in the S&P 500 of −0.0334 percent (−0.0494% + 0.0160%).

[33] The multiplier 0.01234 is a weighted-average of the effects of a change in airline passenger volumes on stock prices in each of the non-airline industries in Figure A.1, where the "effect" is the coefficient obtained by regressing $\epsilon_{it}$ on $\epsilon_{A,it-1}$.