

BLACKROCK®

January 15, 2019

Office of the Secretary
Federal Trade Commission
600 Pennsylvania Avenue, NW
Suite CC-5610 (Annex C)
Washington, DC 20580

Submitted online via <https://www.regulations.gov/>

Re: Competition and Consumer Protection in the 21st Century – Hearing #8

Dear Mr. Secretary:

BlackRock, Inc. (“BlackRock”) appreciates the opportunity to comment in connection with the eighth session of the Federal Trade Commission’s (“FTC” or the “Commission”) hearings on Competition and Consumer Protection in the 21st Century. We welcome the FTC’s Hearings Initiative and efforts to evaluate the effectiveness of competition and consumer protection law, enforcement priorities, and public policy matters in the context of America’s diverse and evolving economy. As an asset manager that invests in thousands of American companies on behalf of our clients, our business benefits from competitive markets and industries. We commend the Commission for prioritizing information gathering and fact-finding to inform its policy efforts.

BlackRock’s comment letter addresses the topics discussed in Hearing #8, ‘Common Ownership’. Specifically, this letter focuses on the following items from the Hearing Notice: (i) item one, which requests comments on the state of the econometric and qualitative evidence for and against the underlying ‘common ownership’ theories, (ii) item four, which requests comments on potential mechanisms by which concentrated holdings may lead to anticompetitive harm, (iii) item five, which requests comment on institutional investors’ incentive and opportunity to affect corporate governance, and (iv) item six, which requests comment on enforcement and policy responses. We welcome the Commission’s decision to solicit industry views on these important regulatory and policy topics.

Introduction

A nascent academic literature purports to link institutional investors’ positions in more than one firm in a concentrated industry to decreased competition and higher consumer costs. This theory, widely referred to as ‘common ownership’, has received attention largely based on a single academic paper that purports to demonstrate, on average, a 3-5% increase in the cost of a US domestic airline ticket as a result of ‘common ownership’ (the “AST Paper”).¹ The authors of this paper (“AST”) posit that firms in a single concentrated industry whose shares are owned, in part, by common minority investors maximize industry profits over firm profits, or, at least, that the

¹ José Azar, Martin C. Schmalz, and Isabel Tecu, “Anticompetitive Effects of Common Ownership,” *The Journal of Finance*, 2018. Hereinafter, the “AST Paper”. Schmalz and other “common ownership” proponents have claimed that there are “at least 24 papers, many of them published in top journals, document[ing] effects on prices, quantities, product market cooperation, innovation.” We have not been able to identify the full cohort of papers he claims support his position. See https://www.ftc.gov/system/files/documents/public_events/1422929/cpc-hearings-nyu_12-6-18.pdf.

managers of the competing firms assume this would be their shareholders' preference and accede to it.

AST have extrapolated their theory about airline ticket prices to argue that 'common ownership' effects are present across the economy, stunting competition in a number of different industries and leading to a social cost that accompanies the private benefits of diversification and good corporate governance. The authors ascribe responsibility for this purported effect to asset managers including BlackRock, Vanguard, and State Street.

Many academics have voiced deep skepticism about the theory of 'common ownership', which suffers from serious conceptual flaws including a lack of a plausible causal mechanism, incorrect assumptions about control by non-controlling shareholders, and a failure to distinguish the incentives of asset owners from asset managers.² In particular, these academics argue that the model applied by AST, which was designed to analyze partial acquisitions of competitors and joint ventures, is not an appropriate model for studying 'common ownership'. This is because unlike cross-ownership, 'common ownership' involves minority equity ownership interests of thousands of corporate, institutional, and individual investors. Since these investors have varied incentive and governance structures, AST's uniform assumptions concerning investors' financial interests and corporate control fail to account for practical and legal realities.

By contrast, other commentators assume the AST Paper's conclusions are sound, and have proposed remedies to address the supposed problem, including limiting asset managers to one equity position per industry, putting hard limits on managers' holdings, or prohibiting managers from voting shares.³ By increasing the cost and risk of diversified investment products, such proposals would undermine households' access to low-cost diversified investments. Moreover, given the lack of support in the academic literature for the AST findings themselves, the vast majority of studies and most of the panelists who presented at Hearing #8 have concluded that any discussion of policy interventions is extremely premature and not justified by the state of empirical research, which is grounded on highly controversial findings and theoretical research.

The proposed remedies seek to fix a problem that does not exist, and we believe these proposals themselves should be cause for concern. 100 million Americans, or 45% of all US households, own mutual funds; 56% of these households' mutual fund assets are held in retirement accounts.⁴ Implementing the remedies proposed by 'common ownership' proponents would constrain the availability of reasonably priced diversified investment products that millions of investors – including pension funds, government institutions and individual retirees – depend on to meet their

² For example, Lucian Bebchuk., Alma Cohen, and Scott Hirst, "The Agency Problems of Institutional Investors," *Journal of Economic Perspectives*, Volume 31, Number 3, Summer 2017, Pages 89–112; Edward B. Rock and Daniel L. Rubinfeld, "Defusing the Antitrust Threat to Institutional Investor Involvement in Corporate Governance," 2017; Patel, "Common Ownership, Institutional Investors, and Antitrust," *Antitrust Law Journal*, 2018; Douglas H. Ginsburg, and Keith Klovers, "Common Sense About Common Ownership," *Conurrences Review*, No. 2-2018; Daniel P. O'Brien and Keith Waehrer, "The Competitive Effects of Common Ownership," *Antitrust Law Journal*, 2017; 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*, 2018.

³ See, e.g., Eric A. Posner, Fiona M. Scott Morton, and E. Glen Weyl, "A Proposal to Limit the Anticompetitive Power of Institutional Investors," 2017, *Antitrust Law Journal* 81 (3): 669–728.

⁴ Investment Company Institute, "2018 Investment Company Fact Book," https://www.ici.org/pdf/2018_factbook.pdf; Investment Company Institute (ICI 2018 Fact Book), "Retirement Assets Total \$29.2 Trillion in Third Quarter", available at https://www.ici.org/research/stats/retirement/ret_18_q3. As of September 30, 2018. Retirement accounts include IRAs and DC plans.

financial goals. In addition, remedies that involve limiting diversified funds to one company per sector would lead to billions of dollars of divestment from public companies by mutual funds, creating massive flows and generating substantial transaction costs.⁵ In accepting as true the hypothetical, marginal harm that the AST Paper has purported to identify, proponents of these extreme remedies recklessly advance an agenda that would have concrete and wide-ranging harm on everyday investors and the economy as a whole.

BlackRock believes that any debate on ‘common ownership’ should be evidence-based and grounded in accurate and robust analysis demonstrating anti-competitive effects, as well as subject to rigorous cost-benefit analysis. To date, the existing research on this topic does not meet this standard.

The remainder of this letter is organized in four parts:

- **Part I:** Describes findings from the replication of results presented in the AST Paper and testing of those results for sensitivities to flawed assumptions. This testing was performed by a third party consultant, Analysis Group, hired by BlackRock. Analysis Group’s findings indicate that the AST Paper’s results do not hold up when incorrect assumptions are corrected.
- **Part II:** Explains index inclusion rules and the implications for treatment of companies during periods of bankruptcy in the AST Paper. Airline company stocks were dropped from the indexes during bankruptcy which is an important methodological flaw in the AST Paper.
- **Part III:** Describes some additional flaws with the AST Paper.
- **Part IV:** Addresses policy measures that have been proposed by “common ownership” proponents.

In addition, we have included an **Appendix** that corrects the record on factual misstatements about BlackRock made by commentators during the Hearing #8 presentations.

BlackRock has chosen to voluntarily make available the code Analysis Group used to perform the analyses in Part I of this letter. This code builds off the materials released by AST after the publication of their paper in the *Journal of Finance* in August 2018. A replication package can be downloaded at <https://www.blackrock.com/common-ownership>. It is BlackRock’s hope that making the code used by Analysis Group publicly available will help ensure the theoretical, policy and legal discussions on this topic are held to the highest academic standards. We invite a full review of the analysis.

⁵ The Investment Company Institute estimates that US equity funds make up 40% of total net assets in mutual funds globally, with total AUM of nearly \$7.5 trillion as of year-end 2017. This does not include global equity funds or hybrid funds that include some US equities. See ICI 2018 Fact Book.

Part I: Testing the AST Paper's results

Notwithstanding the theoretical flaws that have been previously identified by BlackRock⁶ and a range of academics⁷, which we believe call into question the theory of 'common ownership' itself, AST have recently released to the public information that has permitted BlackRock to engage a third party consultant, Analysis Group, to replicate AST's results. Analysis Group was able to replicate AST's results and to test the sensitivities of these results to various methodological choices, or assumptions, made by AST. Analysis Group's sensitivity analysis reveals that AST's results are highly sensitive to incorrect assumptions regarding corporate control and financial incentives. We believe Analysis Group's findings suggest that even the statistical results based on AST's own model and data are not robust to plausible alternative assumptions.

Specifically, Analysis Group found that correcting for either of the following critical flaws in AST's assumptions eliminates the statistical significance of AST's findings regarding anti-competitive effects of 'common ownership':

1. **'Control' During Bankruptcy:** AST assume that equity holders retain 'control' rights during bankruptcy. However, equity holders are 'last in line' in bankruptcy and do not have control over the company during bankruptcy periods. During bankruptcy, companies do not hold annual meetings and there is no venue for shareholders to vote. **Even AST acknowledge that assuming equity holders have control in bankruptcy runs counter to the realities of equity ownership in bankruptcy. When this flaw is corrected, the AST Paper's results are no longer statistically significant.**
2. **Differing Financial Incentives:** AST assume that all institutional investors have the same economic interests in their shareholdings in public companies. This assumption fails to recognize the most basic difference in economic interests between asset managers and asset owners. Asset managers act as fiduciaries on behalf of their clients and earn a small management fee on the total amount of assets they manage. Asset managers invest in thousands of companies across the entire market and do not have meaningful economic interests in the performance of any individual company. **When the differences in economic interests of asset managers and asset owners are properly reflected, the AST Paper's results are no longer statistically significant.**

When the aforementioned erroneous assumptions are corrected, Analysis Group finds no statistically significant relationship between 'common ownership' and airline ticket prices. We believe these findings suggest that the results presented in the AST Paper are not robust to even

⁶ See BlackRock, "Revised and Extended Remarks at FTC Hearing #8: Competition and Consumer Protection in the 21st Century, Panel Discussion on Institutional Investors, Diversification, and Corporate Governance"(December 2018), available at <https://www.blackrock.com/corporate/literature/publication/remarks-barbara-novick-ftc-hearing-8-competition-consumer-protection-21st-century-120618.pdf>; BlackRock, "Remarks at OECD Discussion on Common Ownership by Institutional Investors" (December 2017), available at <https://www.blackrock.com/corporate/literature/publication/barbara-novick-remarks-oecd-common-ownership-120617.pdf>; and BlackRock, *ViewPoint*, "Index Investing and Common Ownership Theories" (March 2017), available at <https://www.blackrock.com/corporate/literature/whitepaper/viewpoint-index-investing-and-common-ownership-theories-eng-march.pdf> (Index Investing *ViewPoint*).

⁷ Tomas 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*, available at ; and Committee on Capital Markets Regulation, "Common Ownership and Antitrust Concerns", (November 2017) available at <https://www.capmktreg.org/wp-content/uploads/2017/11/CCMR-Common-Ownership-1.pdf>.

small changes in assumptions. At the very least, the AST paper should not be used as the basis for formulating policy decisions by the FTC or any other agency given the unreliability of the findings. A memo with information that can be used to replicate Analysis Group's results used in forming these conclusions is publicly available at <https://www.blackrock.com/common-ownership>.

A. Background on AST Paper Methodology

Drawing on economic research evaluating 'cross-ownership'⁸ between firms (e.g., a joint venture between competing firms), AST use an economic measure that augments standard measures of industry concentration to account for the effects of 'common ownership'. AST claim that this measure, referred to as 'MHHI Delta', accurately captures the impact of 'common ownership' on competition.⁹

As used by AST, MHHI Delta reflects two components of an investor's ownership in competing firms. The first is the investor's right to vote in corporate decisions in the firm, which captures its extent of 'corporate control'.¹⁰ The second is the investor's rights to a share in the profits of the firm, which captures its 'financial incentives'. AST assume that both of these terms are directly proportional to the fraction of total shares held by each investor for each quarter of the period they study. Furthermore, they do not account for any relevant effects that bankruptcies can have on investors' ownership and control rights. The following two subsections will show that these two incorrect assumptions drive the statistical significance of AST's results, and when they are corrected, the AST Paper's results are no longer statistically significant.

B. Testing Sensitivity of "Control" Assumption During Bankruptcies

The AST Paper purports to analyze corporate control of airlines using a measurement period when three of the four major airlines — AMR Corp. ('American Airlines') (2011-2013), Delta Air Lines, Inc. ('Delta Air Lines') (2005-2007), and UAL Corp. ('United Airlines') (2002-2006) — experienced extended bankruptcies. Other major airlines and smaller airlines also experienced shorter bankruptcies during this period. Exhibit 1 shows that during 28 of the 56 quarters (or 50%) covered by the AST Paper's sample, at least one major US airline was in bankruptcy.

⁸ Salop and O'Brien (2000) use the terms "partial ownership" and "cross-ownership" interchangeably to refer to the case in which one or more competing firms purchase a percentage of a rival firm's stock. Steven Salop and Daniel O'Brien. "Competitive Effects of Partial Ownership: Financial Interest and Corporate Control" *Antitrust Law Journal*. 2000. Vol 67, pp. 559-614.

⁹ Antitrust regulators commonly use the Herfindahl-Hirschman Index ("HHI") to evaluate the concentration of market shares among rival firms within an industry. AST, in turn, measure "common ownership" using a Modified Herfindahl-Hirschman Index ("MHHI"), first developed by Salop and O'Brien (2000), equal to HHI plus MHHI Delta. Steven Salop and Daniel O'Brien. "Competitive Effects of Partial Ownership: Financial Interest and Corporate Control" *Antitrust Law Journal*. 2000. Vol 67, pp. 559-614.

¹⁰ MHHI assumes control proportionate to share voting, which means that a 10% shareholder has twice the control as a 5% shareholder. In reality and corporate law, control is determined by whether a shareholder has the power to dictate the management and policies of a company. Either a shareholder has control or it does not; and as a result, a 10% shareholder does not have twice the power of a 5% shareholder, which MHHI ascribes to it.

Exhibit 1 - Dates of Bankruptcies of Major Airlines in the US

	<i>Filing Date</i>	<i>Exit Date</i> ¹¹	<i>Quarters Impacted</i>
American Airlines	November 29, 2011	December 9, 2013	9
Delta Air Lines	September 14, 2005	April 30, 2007	8
Northwest Airlines	September 14, 2005	May 31, 2007	8
United Airlines	December 9, 2002	February 1, 2006	14
US Airways	August 11, 2002	March 31, 2003	3
US Airways	September 12, 2004	September 27, 2005	5
Total Quarters			28

Note: Number of quarters do not sum to total because of overlap between quarters.

Source: AST data production.

Despite this important characteristic of the measurement period and sample analyzed, the AST Paper utilizes simplifying assumptions that AST acknowledge are not in line with reality.¹² Specifically, the AST Paper assumes that shareholder control and financial incentives are unchanged when an airline enters bankruptcy, and remain constant at pre-bankruptcy levels throughout the entire course of the bankruptcy. As we will discuss in Part II, this assumption is particularly incorrect for index fund managers because bankrupt companies are removed from equity indexes, causing index funds to sell their shares at or shortly after the bankruptcy filing date. In other words, the AST Paper assumes index fund managers had ‘control’ over the bankrupt companies when, in fact, they did not even own shares in those companies at the time of bankruptcy.¹³

Putting this fundamental issue aside for the moment, assuming equity holders have ‘control’ of a company that is in bankruptcy defies legal and practical realities. When a firm files for bankruptcy protection under US law, the company’s executive managers are under an obligation to act first in the best interest of the firm’s *creditors* and not of equity holders. Equity holders are ‘last in line’ to receive cash flows from the bankrupt firm, and thus any influence equity holders may have had over management pre-bankruptcy is substantially reduced or eliminated during bankruptcy. The rights of secured and unsecured creditors are prioritized over equity holders by law, and equity holders typically only receive compensation or regain their rights to cash flows once all creditors have been adequately compensated. Pre-bankruptcy shareholders typically have no voting rights once a firm enters bankruptcy protection. Importantly, American Airlines, Delta Air Lines and United Airlines did not hold a single shareholder meeting during the period they were in bankruptcy protection, giving their equity holders no formal venue to even attempt to exert influence.

¹¹ The date a company emerges from bankruptcy is the earliest it is eligible to return to an index. The delay some companies experience between emergence from bankruptcy and index reinstatement is due to index methodologies requiring companies meet financial viability metrics to qualify for reinstatement.

¹² AST Paper at 23.

¹³ Another flaw in the assumption of “control” during any period of time in the case of asset managers is that many institutional clients of asset managers retain their right to vote their shares on assets that they hire asset managers to invest. For example, we estimate that approximately one-quarter of equity assets managed by BlackRock do not delegate voting authority to BlackRock as of July 2018. See Index Investing *ViewPoint*.

AST appear to recognize their flawed assumption, as they note that “[b]ankruptcies may confound the results because shareholders have no de jure control rights during such times, and this feature is not captured in our computation of MHHI delta.”¹⁴ In fact, contrary to AST’s simplifying assumption that control continues throughout the bankruptcy period, the impact of bankruptcies on corporate control during the 28 quarters when airlines were in bankruptcy can easily be incorporated into the analysis by setting shareholder control rights during these periods to zero. Doing so reflects AST’s own intellectual concession that equity holders have no *de jure* control rights during bankruptcy.

AST claim to have controlled for this incorrect assumption regarding bankruptcy by running placebo and robustness checks.¹⁵ While AST conclude that their “results are generally weaker in markets and at times affected by bankruptcies,”¹⁶ we believe the checks they conducted were insufficient to validate their main results. AST thus fail to incorporate the actual control rights present during bankruptcy periods.

To test the sensitivity of the AST Paper’s results to this assumption, Analysis Group incorporated this adjustment into the AST methodology. After adjusting for the lack of equity holder control during bankruptcy, the association between “common ownership” and airline ticket prices across the entire study period of the AST Paper is not statistically different from zero. Exhibit 2 illustrates the weakness of the results when control rights are treated correctly. The ranges described by the bars in this exhibit represent the 95% confidence interval around the respective estimates.¹⁷ While the midpoint (i.e., the point estimate) of the right-most bar is positive, the confidence interval includes zero, which means that the estimate is statistically indistinguishable from zero, invalidating AST’s conclusions.

¹⁴ AST Paper, p. 23.

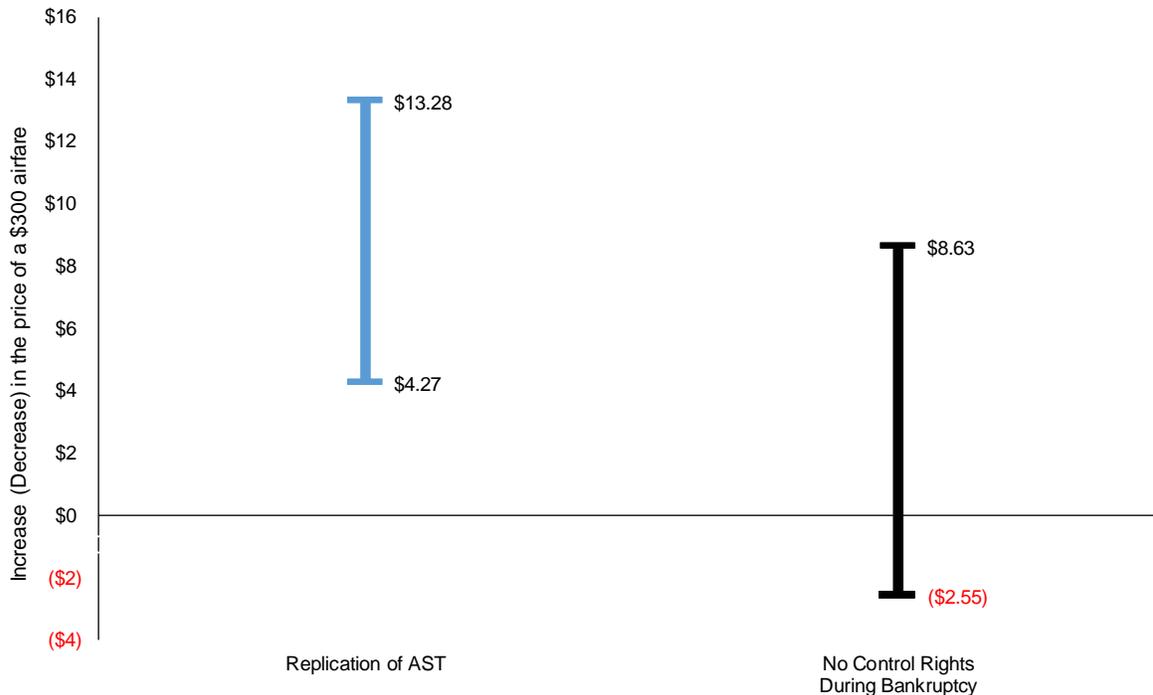
¹⁵ AST Paper at 16.

¹⁶ AST Paper at 24.

¹⁷ As shown in the figure, the statistical analysis finds that the estimated range of statistical confidence (“confidence interval”) includes positive and negative values after correcting for ‘common ownership’ during bankruptcy. For further information, please see Section II.A of the replication memo available at <https://www.blackrock.com/common-ownership>.

Exhibit 2

Estimated Range of the Effect of "Common Ownership" on a \$300 Airfare Range reflects a 95% Confidence Interval



Note: Results from market-carrier level regressions.

This critique of the AST Paper has been raised before in an academic paper that called into question AST's results.¹⁸ However, AST dismissed these criticisms largely on the basis that those academics were unable to fully replicate the AST Paper's baseline results without access to the original code and data.¹⁹ The same cannot be said of the analysis presented in this letter, which is based on the actual code and data from the AST replication package. As the AST Paper's purported correlation between 'common ownership' and airline ticket prices loses statistical significance once this rudimentary correction for bankruptcy periods is made, this analysis demonstrates that the AST Paper's results are not robust.

C. Testing Sensitivity of Assumption of Equivalent Economic Interests of All Institutional Investors Given Differences between Asset Managers and Asset Owners

While the interests of asset owners and asset managers are generally aligned, the AST Paper incorrectly accounts for the different financial incentives that different types of institutional investors have. Specifically, the AST Paper incorrectly assumes that asset owners and asset managers have identical financial incentives. The authors' reliance on regulatory reporting data ascribes a financial interest that is directly proportional to the amount of shares reported, regardless of whether the reporting entity is an asset manager or asset owner. In reality, asset

¹⁸ Patrick Dennis, Kristopher Gerardi, and Carola Schenone, "Common Ownership Does Not Have Anti-Competitive Effects in the Airline Industry," February 2018.

¹⁹ José Azar and Martin C. Schmalz, and Isabel Tecu, "Reply to: 'Common Ownership Does Not Have Anti-Competitive Effects in the Airline Industry,'" April 24, 2018.

managers have substantially less financial interest in the portfolio companies held by funds they manage than the shareholders of those funds. While asset owners are the direct beneficiaries of the gains and losses generated by shares they own, asset managers are paid a management fee—as small as a few hundredths of a percent—based on the aggregate value of assets under their investment discretion. Thus, asset owners’ financial interest reflects the full change in market value of their shares in the company, while asset managers’ direct financial interest is necessarily limited to the management fees they earn. By ignoring differences among different types of shareholders’ financial incentives, the AST Paper overestimates “common ownership” concentration.

To illustrate this point, consider a \$1 million investment in a publicly-traded company’s stock. If this position were held in an index fund managed by an asset manager that charges a 5 basis point management fee (i.e., 0.05%), an increase in the company’s share price of 1% would provide the advisor with \$5 in additional fees. By contrast, an individual asset owner holding the position directly would realize a \$10,000 gain on their investment. The asset owner’s financial incentive in this example is 2,000 times larger than the asset manager’s incentive.

As an aside, this example assumes that the 1% share price increase of an individual equity position has a proportionate positive impact on an investor’s overall portfolio value. However, depending on the source of incremental profit, this is not always the case. Consider the effects of an increase in airline ticket prices alleged by AST: a broad based index fund that holds securities of companies in a diverse array of industries, airlines being only one of many, may experience a net *negative* impact from an increase in airline ticket prices because higher airline ticket prices increase the travel expenses incurred by other companies in the portfolio. As Exhibit 3 demonstrates, airlines represent less than 1% of the most frequently used equity indexes.

Exhibit 3 – Weighting of Airlines in Equity Indexes

Index	American	Delta	United	Aggregate
S&P 500	0.09%	0.15%	0.07%	0.31%
MSCI US Large Cap 300	0.12%	0.19%	0.09%	0.40%
FTSE RAFI US 1000	0.03%	0.05%	0.04%	0.12%
FTSE USA	0.03%	0.04%	0.02%	0.08%
MSCI USA	0.03%	0.04%	0.02%	0.08%
Russell 1000	0.09%	0.13%	0.07%	0.28%

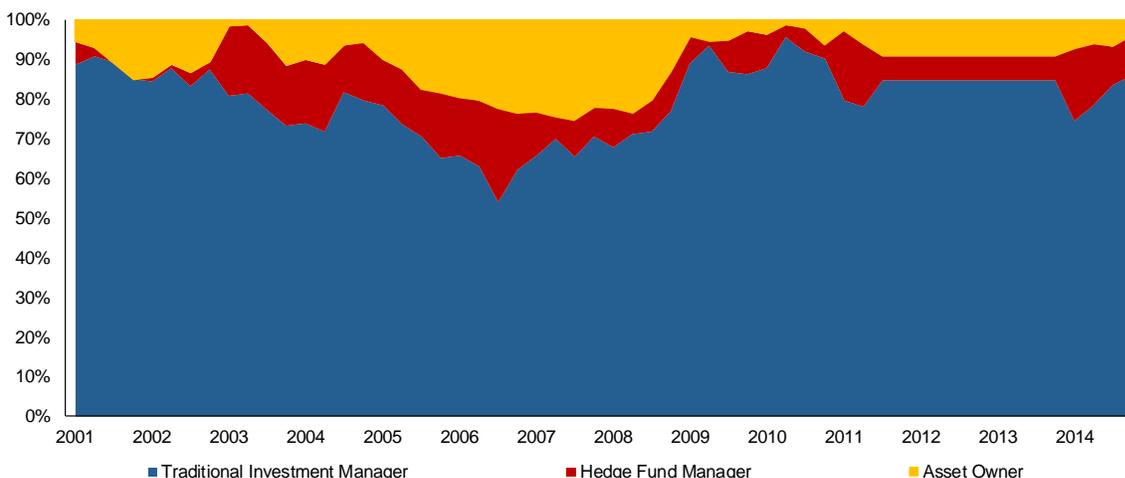
Source: Index weightings from S&P, MSCI, FTSE, Russell, retrieved from BlackRock Internal Data Systems, November 2017.

Because they are compensated by management fees, asset managers’ greatest financial incentive is to compete with other asset managers on the basis of relative investment performance (net of fees) and client service. Index fund managers demonstrate relative performance by most closely tracking the index. Since index funds hold more or less identical portfolios of companies, encouraging an increase in the price of one company or sector has little effect on relative performance. Indeed, even actively managed funds must be ‘overweight’ a stock or a group of stocks compared to competing funds for their relative performance to benefit from higher equity returns of a given company or sector. As such, encouraging an increase in prices of a single company or sector has very limited benefit to asset managers of diversified portfolios relative to their primary commercial interests.

The incorrect assumption that asset owners and asset managers have identical financial incentives impacts a large portion of the ownership data included in the AST Paper’s analysis, as

75-85% of shares during any given quarter of AST's analysis are managed by traditional investment managers of diversified portfolios (such as BlackRock, Capital Group, Fidelity, State Street Global Investors, T.Rowe Price, and Vanguard), as shown in Exhibit 4 below.

Exhibit 4
Scaled Percentage of Total Shares by Investor Type
American Airlines
2001 - 2014 quarterly data



Notes:

[1] Following AST, data on shareholdings are sourced from Thomson Reuters Spectrum, AST's manually collected SEC Form 13F filings, and AST's manually collected proxy statements. Further, share counts are aggregated across separate entities. (See AST, p. 16, fn. 10).

[2] The data does not include owners with equity holdings smaller than 0.5%.

[3] Ownership type is defined by S&P Capital IQ. Asset owners include government pension sponsor, family offices/trust, bank/investment bank, charitable foundations, individuals/insiders, non-institutional, and unclassified investors.

Sources: AST Replication Package; Thomson Reuters Spectrum.

In order to test whether AST's overstatement of the financial incentives of traditional asset managers affects the results presented in the AST Paper, Analysis Group replicated the AST Paper's regressions (again, using the AST Paper's data and code) but instead of assuming equivalent economic interests for all institutional investors, Analysis Group adjusted asset managers' financial incentive to be 1% of their ownership share. 1% is meant to reflect a more realistic estimate of the economic interest in the company that an asset manager would have due to its investment management fee. 1% is a conservative overestimate given that investment management fees on US equity investment products are typically much lower than 1%. For example, expense ratios of three US Large Capitalization Stock ETFs offered by three different providers are between 0.03% and 0.0945%.²⁰ For actively managed products, Reuters recently reported that the asset-weighted average expense ratio of actively managed equity mutual funds fell from 1.08% of assets managed in 2001 to 0.86% in 2014. Management fees are only a subset of a mutual fund's total expense ratio. During the AST Paper's period of study, management fees for mutual funds were typically no greater—and often much less—than 1%.

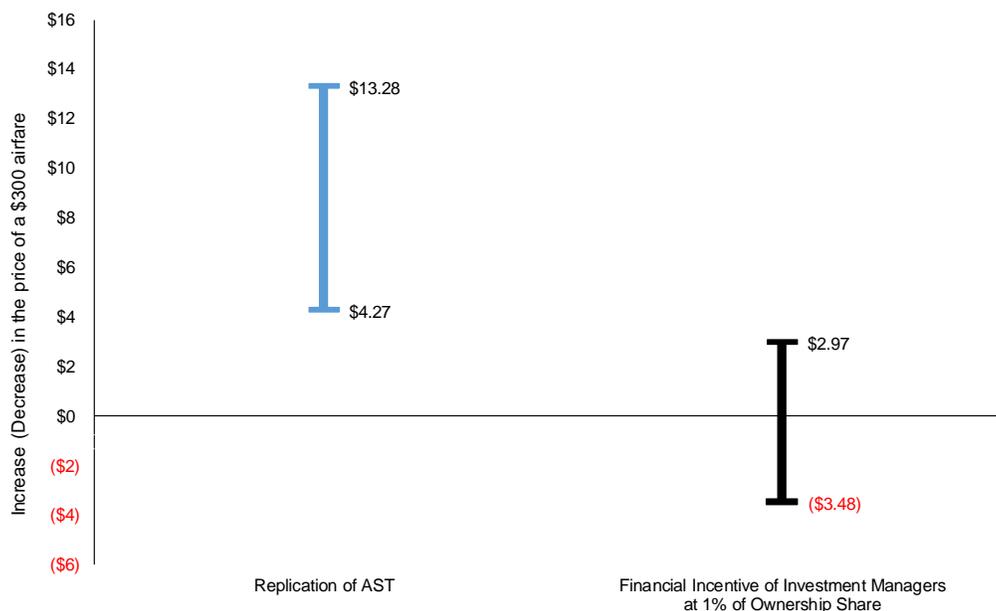
²⁰ IVV, iShares Core S&P 500 ETF, 2018 Prospectus, available at <https://www.ishares.com/us/library/stream-document?stream=req&product=I-SP500&shareClass=NA&documentId=925833-926358-926348-925661-925593&iframeUrlOverride=%2Fus%2Fliterature%2Fprospectus%2Fp-ishares-core-s-and-p-500-etf-3-31.pdf>; VOO, Vanguard S&P 500 ETF, Prospectus (Apr. 25, 2018), available at <https://personal.vanguard.com/pub/Pdf/p968.pdf>; SPY, SPDR S&P 500ETF Trust, Prospectus (Jan. 18, 2018), available at https://us.spdrs.com/public/SPDR_500%20TRUST_PROSPECTUS.pdf.

The same article shows the asset-weighted average expense ratio of passively managed (index) equity mutual funds fell from 0.25% in 2001 to 0.11% in 2014.²¹

After adjusting for asset managers' financial incentives, Analysis Group found that the correlation between 'common ownership' and airline ticket prices is not statistically different from zero, as is illustrated in Exhibit 5 below.²² As such, the AST Paper's test of the correlation between 'common ownership' and airline ticket prices is not robust to this minor correction.

Exhibit 5

Estimated Range of the Effect of "Common Ownership" on a \$300 Airfare
Range reflects a 95% Confidence Interval



Note: Results from market-carrier level regressions.

²¹ See Tim McLaughlin, "Investors save billions as funds cut fees, fight for market share", Reuters, published Oct. 3, 2018, available at: <https://www.reuters.com/article/us-funds-fees-outlook-analysis/investors-save-billions-as-funds-cut-fees-fight-for-market-share-idUSKCN1MD18J>.

²² For further information, please see Section II.B of the replication memo available at <https://www.blackrock.com/common-ownership>.

Part II: Index Inclusion Rules and the Treatment of Companies during Periods of Bankruptcy

As noted in Part I assuming that index fund managers had ‘control’ over airlines when they were in bankruptcy is incorrect. In their paper, AST assume that asset managers’ equity holdings in airlines remain constant for the duration each airline is in bankruptcy and “repeat the last observed value for percentage of shares owned” in bankrupt airlines.²³

This assumption is grossly inaccurate at least in the case of index fund managers (and likely for a portion of active managers as well) and reflects a lack of understanding of index construction rules. Index providers such as S&P Dow Jones and Russell Investments remove companies in bankruptcy protection from their indexes concurrent with or before the bankruptcy filing date and the de-listing of the issuer’s equity from a stock exchange.²⁴ Given their objective is to track the index, index funds sell their shares in bankrupt companies at or shortly after the bankruptcy filing date. Exhibit 6(a) shows that all major airlines in the US were removed from S&P indexes during their respective bankruptcies. Exhibit 6(b) shows that airlines were added back to S&P indexes after they emerged from bankruptcy, only when they could meet the criteria for reinstatement.

Exhibit 6(a) – Bankruptcy Filings of Major Airlines and Deletion from S&P Indexes

	<i>Filing Date</i>	<i>Delisting Date</i>	<i>S&P Deletion Date</i>
American Airlines	November 29, 2011	Jan 5, 2012	Dec 1, 2011
Delta Air Lines	September 14, 2005	Oct 13, 2005	Aug 19, 2005
Northwest Airlines	September 14, 2005	Sep 26, 2005	Oct 3, 2005
United Airlines	December 9, 2002	Apr 3, 2003	Feb 3, 2003
US Airways	August 11, 2002	Aug 14, 2002	Jul 1, 2002
US Airways	September 12, 2004	Sep 22, 2004	N/A ²⁵

Source: SEC filings and S&P announcements.

²³ AST Paper at 16. Based on BlackRock’s experience, Form 13F does not typically include institutional holdings of companies during bankruptcy periods. Equity of bankrupt firms is typically delisted from national stock exchanges at or before the bankruptcy filings, making these securities ineligible for reporting under the SEC’s Form 13F rules. The securities are typically deleted from the quarterly Official List of Section 13(f) Securities published by the SEC in the quarter immediately following the bankruptcy filing.

²⁴ See S&P U.S. Indices Methodology, “A company is deleted from the index if it is involved in a [. . .] significant restructuring such that it no longer meets the eligibility criteria. A company delisted as a result of a merger, acquisition or other corporate action is removed at a time announced by S&P Dow Jones Indices, normally at the close of the last day of trading or expiration of a tender offer [. . .] If a stock is moved to the pink sheets or the bulletin board, the stock is removed.” <https://us.spindices.com/documents/methodologies/methodology-sp-us-indices.pdf>. See also Russell U.S. Equity Indexes Construction and Methodology, “All securities eligible for inclusion in Russell U.S. indexes must trade on an eligible U.S. exchange. Bulletin board, pink sheets or over-the-counter (OTC) traded securities are not eligible for inclusion, including securities for which prices are displayed on the FINRA ADF.” <https://www.ftse.com/products/downloads/Russell-US-indexes.pdf>.

²⁵ US Airways was removed from S&P indexes prior to its first bankruptcy filing in 2002, and was not reinstated to S&P indexes until over a year after its emergence from its second bankruptcy in 2006.

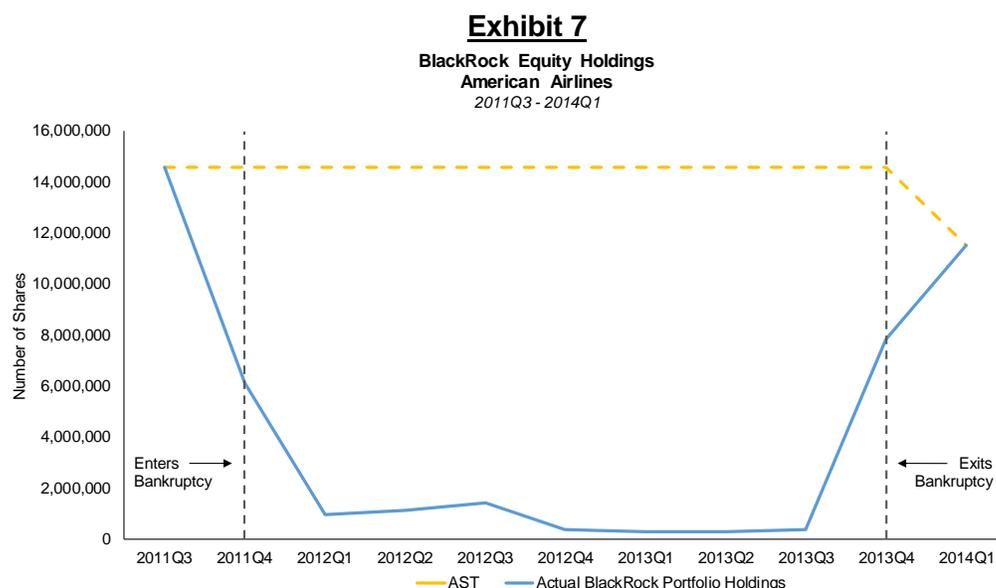
Exhibit 6(b) – Bankruptcy Exits of Major Airlines and Reinstatement to S&P Indexes

	<i>Exit Date</i> ²⁶	<i>Relisting Date</i>	<i>S&P Addition Date</i>
American Airlines	December 9, 2013	December 9, 2013	December 9, 2013
Delta Air Lines	April 30, 2007	May 3, 2007	June 18, 2007
Northwest Airlines	May 31, 2007	May 31, 2007	June 18, 2007
United Airlines	February 1, 2006	February 2, 2006	October 2, 2006
US Airways	March 31, 2003	October 21, 2003	N/A ²⁷
US Airways	September 27, 2005	September 27, 2005	October 2, 2006

Source: SEC filings and S&P announcements.

For example, the overwhelming majority of holdings in portfolios managed by BlackRock in the major US airlines prior to their respective bankruptcy filings were held in index funds. BlackRock therefore sold nearly all of its holdings upon each airline's bankruptcy filing, and did not repurchase shares until each airline had been reinstated to the relevant index. This reality of index management leads to significant differences between the shareholdings attributed to BlackRock in the AST Paper and the amount of shares actually held by BlackRock-managed portfolios during the AST Paper's study period.

Exhibit 7 provides an example of the size of this discrepancy during the period when American Airlines was in bankruptcy.



Notes:

[1] The "AST" line is sourced from Thomson Reuters Spectrum and AST's manually collected SEC Form 13F filings. Share counts are aggregated across separate BlackRock entities. Shares from 2011Q3 are "forward-filled" for the bankruptcy period.

[2] The "Actual BlackRock Portfolio Holdings" line for 2011Q4 - 2013Q4 is sourced from BlackRock's internal data systems and includes shares in American Airlines that would be reported in SEC Form 13F by any of BlackRock's entities. For quarters outside of the bankruptcy period, the values of the "Actual BlackRock Portfolio Holdings" line are the same as the "AST" line.

Source: AST Replication Package; Thomson Reuters Spectrum; BlackRock Internal Data Systems.

²⁶ See Footnote 11.

²⁷ See Footnote 25.

Part III: Additional Theoretical Flaws with AST Paper

The fundamental shortcomings specified in Part I are premised on acceptance of the AST Paper's data and methodologies. However, in the course of replicating the AST Paper's results, Analysis Group identified several other data and methodological issues with the AST Paper. While a comprehensive investigation of each of these issues is beyond the scope of this letter, future empirical research should evaluate the impact of correcting for the flaws described below.

a. Flawed Reliance on Threshold Reporting Data

The AST Paper measures 'common ownership' using Form 13F disclosures filed by asset managers. Form 13F is a quarterly SEC filing in which institutional investors with investment discretion over \$100 million in exchange-traded equity securities provide a snapshot of their holdings. While Form 13F data is intended to provide a degree of visibility into institutional investor holdings, it provides an incomplete picture of investors' total economic exposure and voting rights, and does not provide a complete picture of a company's shareholder base.

Institutional investors interpret the SEC's Form 13F instructions and guidance differently, leading to inconsistencies in how holdings are reported. For example, some large asset managers who have a robust internal proxy voting function interpret the 13F rules as requiring them to report having no voting authority over such shares. This is a critical point, as the AST Paper claims to only count as "control shares" those positions over which an asset owner or manager reports having "sole" or "shared" voting authority on its 13F reports.²⁸ The AST Paper does not appear to correct for inconsistencies in how different asset managers report holdings on Form 13F.

Along with the problems inherent to Form 13F data, the AST Paper relies on a version of Form 13F aggregation data provided by Thomson Reuters Spectrum, which has numerous known flaws.²⁹ While the AST Paper purports to correct for missing filings,³⁰ the ownership data in the *Journal of Finance* replication package indicates that the authors' efforts to correct the dataset are incomplete.³¹ Flaws in the underlying ownership data are especially troubling because the AST Paper's key explanatory variable, MHHI Delta, is extremely sensitive to missing data.³²

²⁸ AST Paper at 17.

²⁹ Wharton Research Data Services, the vendor of the data source, estimates that 10%-15% of all institutional ownership information in their database is erroneously excluded in certain years of its sample. "Research Note Regarding Thomson-Reuters Ownership Data Issues," Wharton Research Data Services, available at <https://wrds-www.wharton.upenn.edu/pages/support/research-wrds/research-guides/research-note-regarding-thomson-reuters-ownership-data-issues/>.

³⁰ AST Paper at 16.

³¹ To highlight one example, the AST Paper incorrectly aggregates the holdings of State Street Research & Management ("SSRM") and State Street Global Advisors, two unrelated investment advisors with similar names, for the entire 14 year sample period between Q1 2001 and Q4 2014. BlackRock acquired SSRM in Q1 2005. SSRM filed its own Form 13F holding report until Q1 2005, after which it filed Form 13F notice reports, indicating that its holdings were being reported on the Form 13F holdings report filed by BlackRock, Inc. SSRM discontinued filing Form 13F notice reports after Q2 2011, as SSRM was merged into another BlackRock subsidiary on July 1, 2011. A correct accounting of SSRM's holdings would have required aggregating its positions with BlackRock (and all of its respective investment manager subsidiaries) for the period from Q2 2005 to Q2 2011.

³² Suppose that an "industry" consists of 5 firms with equal market share, each with a distinct primary shareholder and with minimal "common ownership." In particular, each primary shareholder holds 90% of the shares of a single firm, and 2.5% of the shares of each of the remaining firms. When ownership data is available from all shareholders, MHHI Delta is 462. However, if ownership information is missing for a single shareholder, MHHI Delta rises to over 15,000, exceeding the maximum Herfindahl-Hirschman index value of 10,000 – a counterintuitive result.

b. Failure to Follow Academic Conventions in Working with Airline Ticket Data

Since the domestic airline industry was deregulated in the late 1970s, airline competition has been a subject of keen academic interest. Over time, extensive literature has developed conventions and best practices for analyzing the publicly available ticket data that the AST Paper relies on.³³ The literature analyzing competition among airlines has long recognized that airline tickets, even for a particular route, vary due to the number of stops, number of plane changes, and fare class, among other considerations. Researchers typically filter the ticket data to eliminate itineraries with more than one (or an unknown) operating carrier, one or more stops, and first and business class tickets, in order to create a homogenous sample of tickets for purposes of direct comparisons across markets and over time. The AST Paper fails to employ these well-established methodologies, potentially biasing its results.³⁴

c. Mischaracterizing Incentives and Conduct of Airline Management

The AST Paper assumes that airline management internalizes and bases management decisions upon holdings data not only of their own shareholders, but also of shareholders of all of their competitors. This assumption is implausible for several reasons.

First, and most fundamentally, this assumption would mean that executives of a particular airline are willing to sacrifice their company's profits to advance the purported objectives of a subset of their shareholders who are common holders of competitors. Doing so would be in direct violation of their fiduciary duties to the company.

Second, these same executives would be sacrificing their own personal financial interests. Senior airline executives receive a portion -- or even all -- of their compensation in company stock.³⁵

Third, accounting for their 'common owners' interests would require airlines to have up-to-date knowledge of their shareholders' entire investment portfolio, as well as access to data on the entire investment portfolio held by each institutional shareholder's clients across *their* portfolios. We believe it would be difficult to obtain this data if not impossible given that many institutional investors' holdings are not publically available.

d. Failure to Account for Proxy Advisory Firms

The AST Paper fails to account for the important influence of third party proxy advisors, which wield substantial influence over the outcome of shareholder votes.³⁶ Surveys indicate that 60% of

³³ See, e.g., Severin Borenstein, "Hubs and High Fares: Dominance and Market Power in the U.S. Airline Industry," *RAND Journal of Economics*, 1989. See also Jan Brueckner, Nichola J. Dyer, and Pablo T. Spiller, "Fare Determination in Airline Hub-and-Spoke Networks," *RAND Journal of Economics*, 1992; Federico Ciliberto and Eli Tamer, "Market Structure and Multiple Equilibria in Airline Markets," *Econometrica*, 2009; Connan Snider and Jonathan Williams, "Barriers to Entry in the Airline Industry: A Multi-Dimensional Regression-Discontinuity Analysis of AIR-21," *Review of Economics and Statistics*, 2015.

³⁴ To cite a single example, while the introduction of a first-class ticket option would have no effect on the majority of passengers on a given route, the AST Paper's methodology would interpret this as a fare increase for all passengers.

³⁵ For example, in its Schedule 14A SEC proxy statement filed for 2012, the compensation of Delta Air Lines' top executives was a direct function of various measures of performance, with measurement based on either Delta's performance "relative to composite performance of an Industry Group" or "Delta's absolute performance." See Delta Air Lines 2013 Schedule 14A, p. 37, available at https://www.sec.gov/Archives/edgar/data/27904/000119312513184475/d439083ddef14a.htm#rom439083_39.

³⁶ Another recent paper that shares one author with the AST Paper asserts that "common ownership" disincentivizes portfolio company managers from competing with rival firms by emphasizing absolute, rather than relative, performance in executive

institutional investors rely on proxy advisors in making voting decisions.³⁷ The mechanical reliance by some investors on proxy advisors' recommendations creates a voting bloc that reliably votes in parallel.³⁸ One study estimates that a negative recommendation by Institutional Shareholder Services led to a 25% reduction in say-on-pay support by shareholders.³⁹ By comparison, asset manager voting has been demonstrated to vary from firm to firm.⁴⁰ While the influence of proxy advisory firms is well known in the asset management industry, their role and influence is not accounted for in the AST Paper. This omission is important as AST claims much smaller holdings by asset managers are influential.

e. No Causal Mechanism has Been Established

The AST Paper fails to substantiate a plausible mechanism for the anticompetitive effect it claims to find. The AST Paper proposes three possible causal mechanisms: (1) asset managers fail to actively encourage competition between their portfolio companies;⁴¹ (2) asset managers discourage competition through investment stewardship engagements;⁴² and (3) large index fund positions reduce the likelihood of activist campaign success.⁴³ AST are wrong in all three respects.⁴⁴

AST's first argument supposes that firm management lacks incentives to compete without shareholder pressure. Executive compensation reflecting firm performance through equity

compensation packages. Similar to the AST Paper ignoring the impact of proxy advisors on proxy voting decisions, this executive compensation paper ignores the impact of compensation consultants on executive pay decisions. Boards of directors rely heavily on compensation consultants, who advise on executive compensation packages and rely heavily on objective measures of past performance. See Miguel Antón, Florian Ederer, Mireia Giné, and Martin C. Schmalz, "Common Ownership, Competition, and Top Management Incentives" (Nov. 15, 2016), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2885826. Other academics have reached the opposite conclusion, and have shown that higher "common ownership" is associated with the use of relative performance evaluation and stronger incentives to outperform peers. See Heung Jin Kwon, "Executive Compensation under Common Ownership," Working Paper (September 10, 2017).

³⁷ Joseph A. McCahery, Zacharias Sautner, and Laura T. Starks, "Behind the Scenes: The Corporate Governance Preferences of Institutional Investors," *Journal of Finance*, 2016.

³⁸ Recent research demonstrated that 175 investors representing more than \$5 trillion in assets under management follow ISS's benchmark policy recommendations more than 95% of the time on both shareholder and management proposals. Timothy M. Doyle, "The Realities of Robo-Voting," American Council for Capital Formation (November 2018), available at http://accfcorgov.org/wp-content/uploads/ACCF-RoboVoting-Report_11_8_FINAL.pdf.

³⁹ Nadya Malenko and Yao Shen, "The Role of Proxy Advisory Firms: Evidence from a Regression-Discontinuity Design," *The Review of Financial Studies*, 2016

⁴⁰ BlackRock conducted a review of asset manager votes on shareholder proposals for Russell 3000 companies between July 1, 2016 and June 30, 2017. Our analysis revealed that voting patterns differ considerably across asset managers, and the managers' votes differ strongly compared to ISS recommendations. See BlackRock, "Viewpoint: The Investment Stewardship Ecosystem," July 2018, available at <https://www.blackrock.com/corporate/literature/whitepaper/viewpoint-investment-stewardship-ecosystem-july-2018.pdf> (Stewardship *ViewPoint*).

⁴¹ "[N]ot explicitly demanding or incentivizing tougher competition between portfolio firms may allow managers to enjoy the 'quiet life' and thus lead to an equilibrium with reduced competition and sustained high margins." AST Paper at 7.

⁴² "According to large asset managers, making their voice heard in private engagement meetings is the most important mechanism through which they influence corporate governance....Asset managers also frequently managers engage in direct discussions with portfolio firms." AST Paper at 46.

⁴³ "[C]oncentrated owners such as hedge fund activists have been shown to push their target firms to compete more aggressively against industry rivals. Competitive concerns thus arise when concentrated owners get crowded out by diversified institutions that also hold large stakes in industry rivals — even if the institutions driving the "common ownership" links are entirely 'passive' in terms of corporate governance (other than voting)." AST Paper at 7.

⁴⁴ It is notable that the three causal mechanisms presented in the AST Paper are contradictory. Some are based on the theory that asset managers are too passive, while others are based on the theory that asset managers are too aggressive.

rewards and future employment prospects based on past successes both serve as strong incentives for managers to compete. Moreover, AST's theory proposes a false choice between shareholders actively demanding more competition and shareholders acting anti-competitively. The idea of the "quiet life" that AST take from the literature on corporate governance does not propose such an idea.⁴⁵

AST's second argument is based on a misunderstanding of asset manager investment stewardship. In the normal course of business, most traditional asset managers such as BlackRock do not meet with boards of directors and management teams of public companies to provide direction on how to manage their business.⁴⁶ This is especially true for diversified portfolios, such as index funds or actively managed funds whose performance is benchmarked relative to a diversified index. Rather, engagement provides asset managers with an opportunity to improve their understanding of portfolio companies and their governance structures to better inform proxy voting decisions. Notably, shareholders are not given the opportunity to vote on competitive strategy, nor is there evidence that directors run on a "platform" that promises to promote a competitive strategy.⁴⁷ Furthermore, engagement by asset managers who disclose their >5% holdings on Schedule 13G is limited in both content and context by SEC regulations, the breach of which could lead to civil and criminal penalties.⁴⁸

Finally, the allegation that index managers' failure to support activist campaigns dampens competition is false. Voting against, or declining to support, an activist campaign is a reflection of the fact that there are differing, yet equally legitimate, views on how to best position a company for long-term economic success.⁴⁹ Experience belies the allegation that index managers hinder activist campaigns. Each of the major index managers has an established track record of voting to support activist investors in proxy fights on a case-by-case basis when in their judgement such a vote is in the long-term interests of its investors.⁵⁰

Part IV: Policy Measures Proposed by "Common Ownership" Proponents

A number of proponents of the AST Paper's conclusions have advanced the argument that lawmakers and policymakers must take action to curb the alleged effects of "common ownership." The proponents of these proposals recklessly accept as true the hypothetical harm that "common ownership" has been purported to cause, but advance an agenda that would inflict concrete,

⁴⁵ The "quiet life" potentially affects corporate performance, but through sub-optimal managerial decision making, not anticompetitive behavior. See Marianne Bertrand and Sendhil Mullainathan. "Enjoying the Quiet Life? Corporate Governance and Managerial Preferences" *Journal of Political Economy*, 2003, Vol. 111, No. 5.

⁴⁶ See BlackRock Investment Stewardship's Global Corporate Governance & Engagement Principles, October 2017, at <https://www.blackrock.com/corporate/literature/fact-sheet/blk-responsible-investment-1engprinciples-global-122011.pdf>.

⁴⁷ Edward B. Rock and Daniel L. Rubinfeld, "Defusing the Antitrust Threat to Institutional Investor Involvement in Corporate Governance," *Law and Economics Research Paper Series, Working Paper No. 17-05*, March 2017, Page 9.

⁴⁸ Compliance and Disclosure Interpretations, Exchange Act Sections 13(d) and 13(g) and Regulation 13D-G Beneficial Ownership Reporting, Question 103.11 (July 14, 2016).

⁴⁹ One recent study found that large ownership positions held by index managers are associated with a decline in the need for hedge fund activism, as index managers' investment stewardship activities lead to increases in firm value and future performance. Ian R. Appel, Todd A. Gormley and Donald B. Keim, "Passive Investors, Not Passive Owners," *Journal of Financial Economics*, March 2016.

⁵⁰ Houlihan Lokey, Activist Situations Practice Proxy Voting Review, November 2015, available at http://www.hl.com/email/pdf/2015/HL-Activist-Shareholder-Update-Nov-15_v2.pdf. For example, BlackRock voted in support of at least one dissident candidate at 21% of meetings seeking dissident nominees during the 2017-2018 Form N-PX reporting year. BlackRock Investment Stewardship, 2018 Annual Report, August 2018, available at <https://www.blackrock.com/corporate/literature/publication/blk-annual-stewardship-report-2018.pdf>.

immediate and wide-ranging harm upon retirees, small investors, and the economy. Implementing the proposed policy measures could impair asset managers' ability to offer the low-cost investment solutions that millions of investors – including pension funds, government institutions and individual retirees – depend on to meet their financial goals. For regulators to adopt policy changes that would have immediate and concrete impact on investors in response to an unproven and disputed hypothesis is unwarranted. Below we discuss two of the most problematic policy proposals that have been suggested.

A. Limiting mutual funds to one company per industry

One set of commentators has suggested a complicated, multi-step process in which, each calendar year, the FTC would disseminate a list of concentrated industries, solicit comments on this list, and then publish a final list within a specified time period. Following this pronouncement, asset managers would have a choice to invest in only one issuer per each concentrated industry, or hold less than 1% of each issuer in that concentrated industry. With no empirical support, these authors claim that any investment losses due to lack of diversification from only owning one company per industry would be minimal. And in any event, those investors looking to “squeeze out those last percentage points of diversification” can simply buy a multitude of different index funds across fund providers.⁵¹

We cannot overstate how many incorrect assumptions about investing, capital market operation, and investor behavior are incorporated in this proposal. Idiosyncratic risk of a single company is a well-understood concept in portfolio construction and underlies much of the academic work leading to diversification of risk.⁵² Exhibit 8 below illustrates the risk of investing in only one company per sector, comparing one investors' portfolio with shares in companies among the better performers in their industry, and another with shares in companies among the worst performers.

Exhibit 8 – Idiosyncratic Risk of Non-Diversification

2018						
Sector	Portfolio 1			Portfolio 2		
	Name	Annual Return	Standard Deviation	Name	Annual Return	Standard Deviation
Financial Services	JPM	-9%	1.4	Wells Fargo	-24%	1.5
Airlines	United	+24%	2.0	Delta	-11%	1.8
Telecom	Verizon	+6%	1.3	AT&T	-27%	1.5
Retail	Target	+1%	1.8	Walmart	-6%	1.5
Food Franchising	Domino's	+31%	1.8	Papa John's	-29%	2.6
Aerospace/Defense	Boeing	+9%	2.0	Lockheed Martin	-18%	1.5
<i>S&P 500 Index</i>					-6%	1.1

Note: Performance is calculated as the annual return. The standard deviation is calculated using daily returns.
Source: Bloomberg.

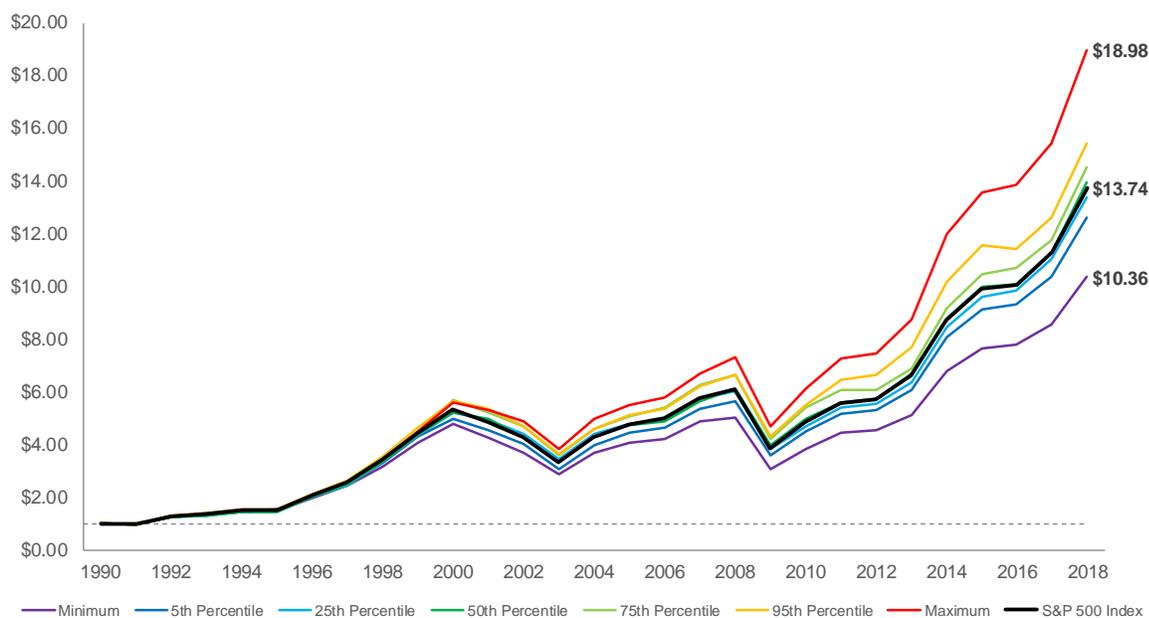
⁵¹ Eric A. Posner, Fiona M. Scott Morton, and E. Glen Weyl, “A Proposal to Limit the Anti-Competitive Power of Institutional Investors,” (March 22, 2017), *Antitrust Law Journal*, Forthcoming, Page 36.

⁵² This understanding of risk in portfolio construction is fundamental to the concepts of modern portfolio theory and the capital asset pricing model, contributions to financial economics for which Harry Markowitz, Merton Miller, and William F. Sharpe jointly received the 1990 Nobel Memorial Prize in Economics.

Owning only one company per “concentrated industry” would have a dramatic effect on the performance of index funds. To illustrate, we asked Analysis Group to perform a Monte Carlo simulation analysis of a counterfactual world in which mutual funds investing in S&P 500 Index component stocks over the period 1990 to 2017 operated within a stylized version of the proposed policy.⁵³

Exhibit 9 shows the simulated cumulative value of a \$1 investment in the counterfactual funds under the proposed ownership limits, with selected percentiles over the period 1990 to 2017.

Exhibit 9
Cumulative Value of \$1 Investment
S&P 500 Index vs. 1 Million Monte Carlo Simulations
 1990 - 2017



Note: Returns are adjusted for stock splits, buybacks and reinvested dividends.
 Source: Morningstar Direct; CRSP.

Ex post, the cumulative value of a \$1 investment in a traditional S&P 500 Index fund over the period 1990 to 2017 would have been \$13.74. However, according to the Monte Carlo simulation analysis, the cumulative value of a \$1 investment in the counterfactual, policy-constrained, funds over the same period would have varied considerably. Households would be forced to take considerably more idiosyncratic risk under this policy. Across one million simulations, the cumulative value of a \$1 investment would have ranged from \$10.36 to \$18.98. Excluding

⁵³ Each year during the period 1990 to 2017, component stocks in the S&P 500 Index are assigned to industries based on their SIC codes. An industry is assumed to be oligopolistic if it has only two to six firms represented in the S&P 500 Index. Investment decisions are made at the start of the each year. For each competitive or monopolistic industry, the fund invests in all firms within the industry in an amount proportional to the firm's weight in the S&P 500 Index. For each oligopolistic industry, the fund randomly selects a firm to invest in within the industry and invests an amount that is directly proportional to the industry's weight in the S&P 500 Index. The likelihood that it selects each firm within the industry is directly proportional to the firm's weight in the S&P 500 Index and is independent of the firm's other selections in that year or in any previous year. In each year, the fund's annual return is equal to the weighted average of the total returns of the firms in which it invested. (Total returns are equivalent to the actual percentage change in the stock price, reinvesting any dividends distributed during the period.)

outliers, the 95th percentile outcome (\$15.42) would have been 22% higher than the 5th percentile outcome (\$12.61).

The results of Analysis Group’s work suggest that S&P 500 Index funds—and, indeed, institutional or individual investors trying to replicate the return of any such market index—will likely experience a wide variation in investment outcomes under such a policy. The proposed ownership limits thus needlessly expose investors to significant firm-specific risk.

But even more fundamentally, implementing these policies would substantially alter the product offerings that have made participation in the financial markets more accessible and affordable to the average investor today than it has at any other point in history. Instead of gaining cross-industry exposure through a single investment instrument, investors would be forced to choose between selecting a single component of each industry, much like an active portfolio manager, or foregoing exposure to a given industry entirely.⁵⁴ In choosing either option, the investor would be forced to accept increased portfolio risk and potentially lower returns in the affected portfolios.

B. Restricting certain investors’ ability to vote

Another proposed policy ‘remedy’ is to limit asset managers’ ability to vote.⁵⁵ BlackRock believes that the right to vote at shareholder meetings is a fundamental right that attaches to share ownership, and this proposal essentially disenfranchises a group of shareholders. In the US, this proposed policy runs counter to rules and guidance that apply to asset managers promulgated by the Department of Labor and the Securities and Exchange Commission.⁵⁶ Further, constraining asset managers’ ability to vote shares on behalf of clients who delegate this responsibility to them would disenfranchise their clients – the underlying asset owners who are most often long-term investors saving for retirement. In addition, this would materially change the balance of power between management and other shareholders. Depending on the company and the composition of its shareholder base, restricting asset managers’ ability to vote may: (i) increase the power and impact of proxy advisors, (ii) empower actors such as activist hedge funds, or (iii) entrench management.⁵⁷ All of these outcomes would have negative implications for long-term savers whose interests are not always aligned with those of other shareholders.

⁵⁴ Further, these consequences do not even factor in the increased management and transaction costs needed to run these types of funds, which would raise fund management fees.

⁵⁵ Posner, Scott Morton and Weyl, *supra* note 3, at 34.

⁵⁶ 17 CFR 275.206(4)-6. SEC, Staff Legal Bulletin No. 20, Proxy Voting: Proxy Voting Responsibilities of Investment Advisers and Availability of Exemptions from the Proxy Rules for Proxy Advisory Firms (June 30, 2014), available at <https://www.sec.gov/interps/legal/cfslb20.htm>. The Department of Labor’s (“DoL”) position is that “the fiduciary act of managing plan assets which are shares of corporate stocks includes decisions on the voting of proxies and other exercises of shareholder rights.” The DoL has also recognized that “fiduciaries may engage in other shareholder activities intended to monitor or influence corporate management where the responsible fiduciary concludes that there is a reasonable expectation that such monitoring or communication with management... is likely to enhance the value of the plan’s investment in the corporation, after taking into account the costs involved.” The DoL’s view is that “proxies should be voted as part of the process of managing the plan’s investment in company stock unless a responsible plan fiduciary determined that the time and costs associated with voting proxies with respect to certain types of proposals or issuers may not be in the plan’s best interest.” See DoL, Field Assistance Bulletin No. 2018-01 (April 23, 2018), available at <https://www.dol.gov/agencies/ebsa/employers-and-advisers/guidance/field-assistance-bulletins/2018-01>; DoL, Interpretive Bulletin Relating to the Exercise of Shareholder Rights and Written Statements of Investment Policy, Including Proxy Voting Policies or Guidelines (December 29, 2016), available at <https://www.gpo.gov/fdsys/pkg/FR-2016-12-29/pdf/2016-31515.pdf>.

⁵⁷ BlackRock, like most other asset managers, aims to vote at 100% of meetings where our clients have given us authority to vote their shares. A recent Broadridge/PwC study found that the average percentage of shares voted by institutional investors was 91% in the 2018 proxy season, contrasted with retail investors who voted 28% of their holdings. Broadridge Investor Communication Solutions, Inc. and PricewaterhouseCoopers LLP, ProxyPulse: 2018 Proxy Season Review, October 2018, available at <https://www.broadridge.com/assets/pdf/broadridge-2018-proxy-season-review.pdf>.

These policy proposals are deeply troubling, especially as they are solutions in search of a non-existent problem. The benefits of institutional investment management, index investing and portfolio diversification are well-established, and each proposed remedy would fundamentally diminish the options available to investors.

Conclusion

The “common ownership” theory itself and the analysis presented in the AST Paper demonstrate a lack of understanding of the asset management industry, including index inclusion rules, the role of proxy advisors, and the incentives of asset managers. A growing body of literature calls into question the AST Paper’s methodologies and conclusions. In addition, the sensitivity testing performed by Analysis Group demonstrates that correcting the incorrect treatment of either control rights during bankruptcy or financial incentives of asset managers eliminates the statistical significance of the results presented in the AST Paper. Based on these methodological problems as well as the conceptual flaws in the common ownership theory itself, BlackRock believes that the findings in the AST Paper are invalid, and at the very least should not be used as the basis for public policy efforts.

Furthermore, the policy proposals that have been suggested by proponents of the “common ownership” theory would do tremendous harm to American savers and retirees, and our nation’s capital markets. Such changes would increase costs and portfolio risk for everyday investors, and substantially reduce the well-known benefits that low-cost diversified index investing provides to asset owners. In addition, many companies that currently benefit from their stock’s inclusion in indexes may find it more difficult to attract capital to invest and grow their business. Finally, engagement by institutional investors plays an important role in the corporate accountability chain and has value not just for shareholders, but for society as a whole. Unless and until the nascent “common ownership” hypothesis and the purported harm it causes can be empirically established, any policy discussions are premature and reckless.

BlackRock appreciates the opportunity to provide our input in connection with the Commission’s hearings on this important debate. If you have any questions on our comment letter, contact the undersigned.

Sincerely,

Barbara G. Novick
Vice Chairman

Bennett W. Golub, PhD
Chief Risk Officer

cc:

Honorable Joseph J. Simons, Chairman, Federal Trade Commission
Honorable Noah Joshua Phillips, Commissioner, Federal Trade Commission
Honorable Rohit Chopra, Commissioner, Federal Trade Commission
Honorable Rebecca Kelly Slaughter, Commissioner, Federal Trade Commission
Honorable Christine S. Wilson, Commissioner, Federal Trade Commission
Honorable Jay Clayton, Chairman, Securities and Exchange Commission
Honorable Robert J. Jackson, Jr., Commissioner, Securities and Exchange Commission
Honorable Hester M. Peirce, Commissioner, Securities and Exchange Commission
Honorable Elad L. Roisman, Commissioner, Securities and Exchange Commission

Appendix: Correcting the Record Regarding Factual Misstatements about BlackRock During Hearing #8

There were a number of false claims made by panelists during Hearing #8 regarding the extent and nature of BlackRock's engagements with companies in which it invests on behalf of clients. We would like to correct the record in regards to these claims and ask the Commission to consider these points when reviewing the record from the hearing.

A. BlackRock does not tell companies to fire employees.

First, in his remarks and associated PowerPoint slides, Martin Schmalz made categorically false claims about the extent to which BlackRock exerts influence on the companies in which we invest on behalf of clients. At the hearing, Dr. Schmalz stated that "Larry Fink [BlackRock's CEO] is on the record saying we can tell a company to fire 5,000 employees tomorrow."⁵⁸ In making this assertion, Dr. Schmalz mischaracterized the nature of engagement between BlackRock and companies in which it invests, as well as the extent to which BlackRock is able to influence strategic decisions of companies. This particular quote appeared in a University of Chicago blog post about a discussion at the 2016 World Economic Forum. An exact transcript of that event is not available to our knowledge. However, we believe that the quote referenced was taken out of context. During the panel, which was a discussion of corporate governance and sustainability topics, Fink referenced a hypothetical counterfactual where investors are focused solely on short-term profit seeking rather than longer-term drivers of company performance. BlackRock's investment stewardship activities do not entail telling companies to fire or hire employees.

B. BlackRock has not lobbied for mergers of European banks.

In his remarks, Dr. Schmalz quoted a headline from German newspaper *Frankfurter Allgemeine*, which he translates as, "*Fund giant BlackRock lobbies for mergers of European banks.*"⁵⁹ The article drew on an interview on the topic of challenges and disappointing returns in the European banking market. The interviewer's suggestion of a merger between two German banks, Deutsche Bank and Commerzbank, is dismissed, with the comment that "*If we're talking about a need for consolidation, then we should not do that at the national level.*"

Dr. Schmalz's quotation of the article title appears to be intended to demonstrate a "mechanism to affect mergers", and therefore competitive outcomes.⁶⁰ However, the article itself contains neither proactive statements by BlackRock in favor of mergers among European banks, nor specific comments regarding Deutsche Bank, Commerzbank, or any other merger scenarios. It is our view that headlines of newspaper articles should not be relied upon as statements of fact.

⁵⁸ Transcript of FTC Hearings Session #8: Competition and Consumer Protection in the 21st Century (Dec. 6, 2018), Page 193, Lines 23-24, available at https://www.ftc.gov/system/files/documents/public_events/1422929/ftc_hearings_session_8_transcript_12-6-18.pdf.

⁵⁹ Frankfurter Allgemeine Zeitung, *Fondsriese Blackrock wirbt für Fusionen europäischer Großbanken* (Nov. 4, 2016), available at <https://www.faz.net/aktuell/wirtschaft/fondsriese-blackrock-wirbt-fuer-fusionen-europaeischer-grossbanken-14466436.html>.

⁶⁰ Presentation Slides - FTC Hearings Session #8: Competition and Consumer Protection in the 21st Century (Dec. 6, 2018), slide 74, available at https://www.ftc.gov/system/files/documents/public_events/1422929/cpc-hearings-nyu_12-6-18.pdf.

C. BlackRock does not dictate to companies their share buyback strategies.

Additionally, in his remarks Dr. Schmalz cites that “BlackRock’s CEO L. Fink directly expresses his views on payouts and capex in letters to CEOs, threatens votes against management” as evidence that common ownership affects corporate financial choices.⁶¹ This is a misleading assertion regarding BlackRock’s engagement with companies in which we invest on behalf of our clients.

As a fiduciary, BlackRock maintains a dedicated investment stewardship team that aims to understand companies’ business models and ask probing questions—not to tell companies what to do. BlackRock’s Investment Stewardship team engages with companies to encourage practices that drive sustainable, long term growth.

These engagements may touch on topics including share buybacks and capital expenditures as they relate to long-term strategy. However, the suggestion that Mr. Fink’s annual letter to CEOs constitutes a command to companies as to their specific strategies regarding share buybacks is clearly false. We do not dictate to companies how they should run their corporate balance sheets, nor do we have the ability to do so.

⁶¹ Presentation Slides - FTC Hearings Session #8: Competition and Consumer Protection in the 21st Century (Dec. 6, 2018), slide 115, available at https://www.ftc.gov/system/files/documents/public_events/1422929/cpc-hearings-nyu_12-6-18.pdf.