"Horizontal Shareholding:" Is Oligopoly Pricing a Symptom or the Disease?

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I. Background

In 2008, the U.S. Department of Justice's Antitrust Division ("DOJ") let Delta Air Lines merge with Northwest Airlines.[1] Two years later, in 2010, the DOJ cleared United Airlines' acquisition of Continental Airlines, after the companies divested some airport slots to Southwest Airlines.[2] The next year, the DOJ cleared Southwest's acquisition of AirTran Airways.[3] Then, in November 2013, the DOJ negotiated a consent decree that allowed US Airways to merge with American Airlines in exchange for the companies agreeing to divest some airport slots.[4] In short, the airline industry underwent a major wave of consolidation in a relatively short time. Soon thereafter, average prices for airfare went up appreciably—despite the cost of jet fuel plummeting during the same time.[5]

In the face of these price increases, the DOJ opened an investigation into whether the airlines may be colluding with one another to keep airfare prices

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[1] *Statement of the Dep't of Justice's Antitrust Division on its Decision to Close its Investigation of the Merger of Delta Air Lines Inc. and Northwest Airlines Corporation* (Oct. 29, 2008), available at https://www.justice.gov/archive/atr/public/press_releases/2008/238849.htm.

[2] *United Airlines and Continental Airlines Transfer Assets to Southwest Airlines in Response to Dep't of Justice's Antitrust Concerns* (Aug. 27, 2010), available at https://www.justice.gov/opa/pr/united-airlines-and-continental-airlines-transfer-assets-southwest-airlines-response.

[3] *Statement of the Dep't of Justice Antitrust Division on its Decision to Close its Investigation of Southwest's Acquisition of Airtran* (Apr. 26, 2011), available at https://www.justice.gov/opa/pr/statement-department-justice-antitrust-division-its-decision-close-its-investigation.

[4] *See* Competitive Impact Statement, *United States v. US Airways Group, Inc.*, Case No. 1:13-cv-01236 (CKK) (D.D.C. filed Nov. 12, 2013), available at https://www.justice.gov/atr/case-document/file/514516/download.

[5] Justin Elliot, *The American Way*, PROPUBLICA, Oct. 11, 2016; Volodymyr Bilotkach, *Are Airline Mergers Leading to Higher Air Fares?*, NEWSWEEK, Aug. 9, 2015.

high.[6] To date, that investigation has not led to any enforcement actions—suggesting that the DOJ did not find evidence to support a claim that airfares increased because of price-fixing.

In the meantime, a new theory emerged to explain why airfares increased following the wave of airline consolidation. In 2015, a team of economists—José Azar and Isabel Tecu of Charles River Associates and Martin Schmalz of the University of Michigan—released a paper[7] arguing that the increase in U.S. airfares from 2001 to 2013 was caused by increases in "common ownership" of airline companies by institutional investors like BlackRock and State Street. If true, this theory could not only explain why airfares increased after the US Airways/American Airlines merger closed in 2015, but it could also have profound implications for antitrust policy generally. However, as this article will argue, the economists' theory may not be as compelling as some have interpreted it to be, and the antitrust enforcement community should pause before taking actions that could fundamentally alter the national economy based on an as-yet unproven economic theory.

II. Horizontal Shareholding

The economists' argument is both novel and straightforward. They begin with the premise that large institutional investors have increasingly grown in importance in the U.S. economy at large, to the point that institutional investors now collectively hold between 70% and 80% of all the publicly traded securities in the United States.[8] This pattern is especially true in the airline industry. Five investment firms—BlackRock, Vanguard, State Street, Primecap, and Fidelity—today are each on the list of the top-ten largest shareholders for each of the four

[6] Drew Harwell et al., *Justice Dept. Investigating Potential Airline Price Collusion*, WASH. POST, July 1, 2015.

[7] José Azar, Martin C. Schmalz, and Isabel Tecu, *Anti-Competitive Effects of Common Ownership* (July 5, 2016), Ross School of Business Paper No. 1235, available at https://papers.ssrn.com/sol3/papers2.cfm?abstract_id=2427345.

[8] *Id.* at 1.

major U.S. airlines.[9] This means that the four major U.S. airlines each count the same five investment firms as key shareholders. Thus, the economists analyzed publicly available data to see whether increases in common ownership among airline companies have correlated with increases in airfares.

The results, if correct, are remarkable. The economists conclude that average airfares across the United States today are between 3-11% higher than they would be absent common ownership of competing firms by institutional investors.[10] In fact, they find that common ownership in the airline industry affects competition as much as one would expect to see if four airlines with 25% market shares were to merge into just two airlines with 50% market shares.[11]

The economists' findings have caused a stir in the antitrust community. Professor Einer Elhauge of Harvard called the findings an "economic blockbuster" and called on the DOJ and Federal Trade Commission ("FTC") to start using Section 7 of the Clayton Act[12] to sue institutional investors that acquire interests in competing companies when the effect is to lessen competition.[13] Professor Elhauge also coined the teacherly term "horizontal shareholding" to describe the phenomenon of common sets of investors owning significant shares in horizontal competitors.[14]

Meanwhile, a team of academic commentators has released an article that not only echoes Professor Elhauge's call for antitrust enforcers to challenge horizontal shareholdings that lessen competition under Section 7 of the Clayton Act, but also proposes that the DOJ and FTC release a statement of enforcement

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[9] Martin Schmalz, *Warren Buffett is Betting the Airline Oligopoly is Here to Stay*, HARVARD BUSINESS REVIEW (Nov. 17, 2016).

[10] Azar, Schmalz, and Tecu, *supra* note 8, at 37.

[11] *Id.* at 17.

[12] 15 U.S.C. § 18 ("No person engaged in commerce . . . shall acquire . . . any part of the stock or other share capital . . . of another person engaged also in commerce . . . where . . . the effect of such acquisition may be substantially to lessen competition, or to tend to create a monopoly.").

[13] Einer Elhauge, *Horizontal Shareholding*, 129 HARV. L. REV. 1267 (2016).

[14] *Id.*

policy about the issue.[15] Specifically, they propose that the agencies declare a policy that no institutional investor or individual will be permitted to own shares in multiple firms in an oligopoly where that investor's interest represents more than 1% of the total size of the relevant industry.[16] The commentators suggest that a safe harbor could be recognized for passively managed index funds that commit to never communicating with the companies they invest in and never exercising independent judgment about the corporate directors they vote for.[17] While the commentators allow that their proposal "would fundamentally change the pattern of holdings of the largest investors in the economy and thus the basic structure of the financial sector,"[18] they believe this intervention to be warranted by the supposed competitive harms of horizontal shareholding.

The DOJ, for its part, reportedly issued civil investigative demands to some of the large institutional investors that own airline stocks, to probe what the investors may have done to influence the airlines' pricing.[19] Meanwhile, two of the economists who wrote the original paper (joined by Sahil Raina of the University of Michigan) have expanded their earlier research to the banking industry, where they conclude that horizontal shareholding has resulted in lower interest rates for deposits and higher maintenance fees to the detriment of consumers.[20]

III. Legal Implications

As horizontal shareholding has drawn more and more attention from the antitrust community, a key question that has emerged is: how, exactly, do

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[15] *See* Eric A. Posner, Fiona Scott Morton, and E. Glen Weyl, *A Proposal to Limit the Anti-Competitive Power of Institutional Investors* (Feb. 10, 2017), ANTITRUST LAW JOURNAL (forthcoming), available at https://papers.ssrn.com/sol3/papers2.cfm?abstract_id=2872754.

[16] *Id.* at 33-35.

[17] *Id.* at 44.

[18] *Id.* at 39.

[19] David McLaughlin and Mary Schlangenstein, *U.S. Looks at Airline Investors for Evidence of Fare Collusion*, BLOOMBERG (Sept. 22, 2015).

[20] José Azar, Sahil Raina, and Martin C. Schmalz, *Ultimate Ownership and Bank Competition* (July 23, 2016), available at https://papers.ssrn.com/sol3/papers2.cfm?abstract_id=2710252.

common shareholdings result in oligopoly prices? (One is reminded of Walter Heller's definition of an economist as someone who, when he finds something that works in practice, looks to see if it works in theory.[21]) A few hypotheses have been proposed.[22] One theory is that institutional investors engage in corporate activism by meeting face-to-face with company officers and explicitly persuading them to adopt an oligopoly strategy. Softer theories are that institutional investors use their collective voting power to elect officers and directors who favor oligopoly strategies, or that institutional investors push for officer compensation packages that reward oligopoly performance. A softer theory still is that corporate officers and directors tacitly internalize the best interests of their investors, leading them to adopt an oligopoly strategy out of something akin to a fiduciary duty to their investors. An alternative theory is that institutional investors might serve as vectors—knowingly or not—for the exchange of sensitive information between competing firms.[23]

Lost in all this discussion, however, is the basic, threshold question: is oligopoly pricing the *effect* of horizontal shareholding, or instead is oligopoly pricing the *cause* of horizontal shareholding?[24] This distinction is critical because, as a legal matter, Section 7 of the Clayton Act only prohibits mergers or acquisitions that may have "the effect" of lessening competition or creating a monopoly. Therefore, if horizontal shareholding causes oligopoly pricing, then

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[21] *See generally* JOEL SLEMROD & CHRISTIAN GILLITZER, TAX SYSTEMS 96-97 (2014).

[22] *See, e.g.*, Azar, Schmalz, and Tecu, *supra* note 8, at 33-36; Eric A. Posner, Fiona Scott Morton, and E. Glen Weyl, *supra* note 16, at 14-15; Allen Grunes and David L. Meyer, *Overlapping Ownership by Institutional Investors: A Legal Perspective*, ABA Section of Antitrust Law Transportation and Energy Industries Newsletter (Fall 2015), available at https://media2.mofo.com/documents/151000institutionalinvestors.pdf.

[23] An interesting twist on this last theory is that a company who receives a recommendation from a key shareholder to increase its prices might reasonably assume that its competitor—which the shareholder is also a key investor in—is probably receiving the same recommendation. *See, e.g.*, Grunes and Meyer, *supra* note 23.

[24] Even this construction oversimplifies the question. For instance, it may be possible that one phenomenon is necessary, but not on its own sufficient, to cause the other one. Alternatively, it may be possible that oligopoly pricing causes some horizontal shareholding and, in turn, that horizontal shareholding causes some oligopoly pricing. Or, it is possible that the two phenomena share no causal connection whatsoever, or that oligopoly pricing and horizontal shareholding are both effects from some other cause, but that one phenomenon does not cause the other.

the government (and, in appropriate cases, private individuals) might be able to challenge horizontal acquisitions of stock by large institutional investors. If, on the other hand, oligopoly pricing causes horizontal shareholding, then the antitrust laws will not support lawsuits by the government or by private individuals. More to the point, if oligopoly pricing causes horizontal shareholding rather than the other way around, then there is no policy reason to discourage horizontal shareholding in the first place.

IV. Is Oligopoly Pricing a Symptom or the Disease?

The economists who prepared the original paper conclude that oligopoly pricing is an effect of horizontal shareholding rather than a cause. They reach this conclusion based on a natural experiment: they take BlackRock's acquisition of Barclays Global Investors in 2009, which was an endogenous event that caused a one-time increase in horizontal shareholding without affecting the concentration of the airline industry. The economists' models show that, compared to a counterfactual world where that merger never took place, airfares rose appreciably within months of the BlackRock/Barclays Global Investors merger closing. In fact, they conclude that this one merger of institutional investors in 2009 on its own caused the average airfare across the country to increase by 0.6%.[25]

On closer examination, however, there is reason for questioning the economists' analysis. The BlackRock/Barclays Global Investors merger happened to close in December 2009—just one month before Delta and Northwest formally integrated their businesses,[26] and five months before United and Continental announced their plans to combine.[27] This accident of timing is no fault of the economists, and it may not on its own defeat the economists' conclusions. But the timing is conspicuous enough to at least warrant further

[25] Azar, Schmalz, and Tecu, *supra* note 8, at 21-23, 37, 59.

[26] Jad Mouawad, *Delta-Northwest Merger's Long and Complex Path*, N.Y. TIMES, May 18, 2011.

[27] Azar, Schmalz, and Tecu, *supra* note 8, at 21, 24.

inquiry into whether increases in airfare pricing may instead be the cause of horizontal shareholding, rather than the effect.

This author is not an economist, and the causation question is ultimately an empirical one that can only be answered with data. But, *a priori*, there are at least two reasons to suspect that oligopoly pricing may have a significant role in causing horizontal shareholding rather than the other way around. First and foremost, Wall Street is run by smart people whose full-time jobs are to research the businesses and industries in which they invest. Therefore, when an industry like airlines—which has long been unprofitable due to large capital requirements and intense competition—becomes markedly more concentrated in the matter of five or six years, at least some fund managers will start buying airline stocks in anticipation of improved future profits. For example, CNBC pundit Jim Cramer recommended that investors start buying stocks in the airline sector in March 2013—while the DOJ was still reviewing the US Airways/American Airlines merger—in anticipation of what he called the coming "oligopoly."[28] And as another example, legendary investor Warren Buffett—who in the 1990s swore off investing in the airline sector for its "kamikaze pricing tactics"—announced in late 2016 that his firm has taken a $9.3 billion interest in four publicly traded airlines.[29] Therefore, all else equal, one would expect that as an industry becomes more and more concentrated, some investors will buy more and more exposure to the firms in that industry, leading to horizontal shareholding.[30]

[28] Lee Brodie, *Wait, What? – Cramer Likes an Airline Stock?!!*, CNBC.com, Mar. 5, 2013. It is worth pointing out that Jim Cramer correctly predicted that the DOJ would clear the US Airways/American Airlines merger more than a year before this news became official. This illustrates an endemic problem for economists trying to show causation from horizontal shareholding: since savvy investors are often able to predict industry trends before they happen, it is possible for oligopoly prices to cause horizontal shareholding, even if the horizontal shareholding happens before prices start to rise.

[29] Jonathan Stempel, *Warren Buffett's Berkshire Takes Huge Bite of Apple Shares, Boosts Airline Stocks*, REUTERS (Feb. 15, 2017).

[30] This effect will only become more pronounced if an industry increases in profitability due to merger-related efficiencies, whether in the form of cost reductions or of enabling new areas for growth.

The second reason to suspect that oligopoly pricing may cause horizontal shareholding has to do with the prevalence of "index funds."[31] Index funds are a type of investment fund whose makeup are based on indices of securities, such as the S&P 500 index. Some discretion is exercised in selecting what companies will be included on a given index. For instance, the S&P 500 index consists only of companies with market capitalizations of $5.3 billion or more, and the capitalizations are "looked at in the context of [a company's] short- and medium-term historical trends, as well as those of its industry."[32] Index funds have exploded in popularity over the past two decades; as of 2016, they represented 38% of the entire mutual fund industry's assets under management.

Oligopoly pricing in an industry can lead to increased profits for the firms in that industry.[33] In turn, increased profits lead to increased market capitalizations and, subjectively speaking, better industry outlooks. Thus, all else equal, one would expect that as an industry becomes more and more concentrated, the firms in that industry may become more and more selected for inclusion in the indices that underlay large, institutional index funds.

Airlines are a case in point. Until 2013, the only airline included in the S&P 500 index was Southwest. In 2013, as the prospect for a recovery in the airline sector improved, Delta was added to the index.[34] In 2015, American

[31] Index funds have exploded in popularity over the past two decades; as of 2016, they represented 38% of the entire mutual fund industry's assets under management. This figure was just 17% as recently as 2005. *See* Goldman Sachs Investment Research, *Directors' Dilemma: Responding to the Rise of Passive Investing*, at 4 (Jan. 9, 2017) available at http://www.goldmansachs.com/our-thinking/public-policy/directors-dilemma-f/report.pdf . The value that index funds provide investors is low-cost diversification: a single index fund might invest in hundreds or even thousands of separate securities, depending on the index to which the fund adheres. And because the day-to-day management of an index fund can be handled by computers, index funds tend to have low management fees.

[32] *See* S&P U.S. Indices Methodology (Feb. 2017), available at http://us.spindices.com/documents/methodologies/methodology-sp-us-indices.pdf?force_download=true.

[33] *But see Brooke Group Ltd. v. Brown & Williamson Tobacco Corp.*, 509 U.S. 209, 238 (1993) (oligopoly pricing is unlikely to succeed in an industry facing declining demand and excess capacity).

[34] Edward Dufner, *American Airlines to Join S&P 500 in Comeback Sign for Industry*, BLOOMBERG (Mar. 16, 2015).

Airlines and United Continental were both added to the index,[35] as was Alaska Air in 2016.[36] In each of these cases, it is reasonable to surmise that increased industry profitability led to greater horizontal shareholding by companies like Vanguard and State Street that manage twelve-figure index funds based on the S&P 500.[37]

Additionally, as an industry becomes more and more profitable, it becomes more and more likely that index funds will be formed to follow that specific industry. Thus, in April 2015, the "U.S. Global Jets" exchange traded fund (ticker symbol: "JETS") was launched, providing investors the first index fund focused solely on the U.S. airline industry. As of this writing, the JETS fund has over $65 million under management.[38]

V. Conclusion

The question whether horizontal shareholding causes oligopoly prices, or instead whether oligopoly prices cause horizontal shareholding, is ultimately an empirical one for which further study needs to be done. In the meantime, however, there are three important lessons to take away. First, there are strong *a priori* reasons to believe that oligopoly prices might cause horizontal shareholding and, *a posteriori*, experience shows that everyone from Jim Cramer to Warren Buffett to the U.S. Global Jets exchange traded fund have seen the opportunity to profit off of the recent increase in concentration in the airline industry. Therefore, antitrust practitioners should bring a healthy dose of skepticism to analyses or

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[35] *Id.*; *United Continental Finally Makes its Way to the S&P 500*, FORBES (Sept. 1, 2015).

[36] Maria Armental, *Alaska Air to Replace SanDisk in S&P 500*, WALL STREET JOURNAL (May 10, 2016).

[37] As of this writing, the Vanguard 500 Index Fund Investor Shares (ticker symbol: VFINX) has over $290 billion in assets under management, while State Street's SPDR S&P 500 exchange traded fund (ticker symbol: SPY) has over $230 billion. *See* Vanguard 500 Index Fund Investor Shares, available at https://personal.vanguard.com/us/funds/snapshot?FundId=0040&FundIntExt=INT; State Street Global Advisors SPDR S&P 500 ETF, available at https://us.spdrs.com/en/product/fund.seam?ticker=SPY.

[38] *See* JETS, U.S. Global Jets ETF, available at http://www.usglobaletfs.com/jets_fund.html.

arguments that attribute some—let alone 100%—of an industry's oligopoly pricing to the phenomenon of horizontal shareholding.

Second, given all the reasons for questioning whether horizontal shareholding causes oligopoly prices, antitrust enforcement agencies should employ some regulatory humility[39] before rushing to issue civil investigative demands, adopting statements of enforcement policy, amending the Hart-Scott-Rodino reportability rules, or bringing a test case against institutional investors for owning stocks in multiple companies in the same sector. Institutional investment firms provide real benefits to society at large: they help individual investors achieve diversification, they reduce transaction costs, and they at least arguably promote good corporate governance. The antitrust enforcement agencies therefore should make sure that they are on solid economic grounds before condemning, or raising the cost of, legitimate business activities that are not only beneficial for society, but that could very well be competitively harmless.

Last but not least, any discussion of horizontal shareholding should not overlook the role of the DOJ and FTC in front-end merger review and enforcement. No matter whether horizontal shareholding causes oligopoly prices or oligopoly prices cause horizontal shareholding, front-end merger review plays an important role in assessing the possibility of oligopoly behavior in consolidating industries.

[39] *See generally* FTC Commissioner Maureen K. Ohlhausen, *Regulatory Humility in Practice* (Apr. 1, 2015), available at https://www.ftc.gov/system/files/documents/public_statements/635811/150401aeihumilitypractice.pdf.