POLICY SPOTLIGHT

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Common Ownership Data is Incorrect

The theory of 'common ownership' hypothesizes that there could be a link between institutional investors' minority holdings of more than one company in an industry and decreased competition. This theory suffers from many flaws. Nevertheless, it has received significant attention, largely based on a single academic paper that claims to find evidence that 'common ownership' leads to increased airline ticket prices.[1] The 'airlines paper' has led to calls from other academics for policy measures that would have harmful effects on investors. Unfortunately, the 'airlines paper' reflects a lack of understanding of both asset management and airline pricing strategies. This Policy Spotlight focuses on index inclusion rules and the 'airline paper's' use of incorrect data on asset managers' airline holdings. A more complete discussion of the flaws of the 'common ownership' theory more generally can be found in the letter we filed with the FTC.

Index Inclusion Rules

The 'airlines paper' was based on institutional holdings data for seven airlines between 2001Q1 and 2014Q4. These airlines were: American Airlines, Delta Air Lines, Continental Airlines, Northwest Airlines, Southwest Airlines, United Airlines, and US Airways. During this period, five of the airlines went through bankruptcy and six of the airlines merged into three surviving companies.[2]

Bankruptcy of a company triggers a series of important events related to ownership. Close to the declaration of bankruptcy, the company's shares are delisted from the exchange, and index providers such as S&P and MSCI remove the company's shares from their indexes. In response, index funds sell the shares since the investment objective of these funds is to closely track the index. Exhibit 1 shows the various airlines entering bankruptcy and subsequently being delisted from exchanges and deleted from S&P indexes. Exhibit 2 shows the various airlines exiting bankruptcy and subsequently being relisted on exchanges. Exhibit 2 further demonstrates that the index providers do not immediately return a company to the index upon its exiting bankruptcy. The date the company relists on the exchange is the *earliest* date it is eligible to return to the index, and in some cases, the delisting period is longer than the bankruptcy period, resulting in some extended periods when a stock would not be held in index portfolios.[3] In the case of US Airways, the company entered bankruptcy *twice* during the study period and was not included in the index for over four years (until after it exited bankruptcy for the second time).

*Index portfolios **do not own** company stocks during their bankruptcies and sometimes for an extended period beyond bankruptcy.*

Exhibit 1: Bankruptcy Filings of Major Airlines and Deletion from S&P Indexes

	Bankruptcy Filing Date	Delisting Date	S&P Deletion Date
American Airlines	Nov 29, 2011	Jan 5, 2012	Dec 1, 2011
Delta Air Lines	Sep 14, 2005	Oct 13, 2005	Aug 19, 2005
Northwest Airlines	Sep 14, 2005	Sep 26, 2005	Oct 3, 2005
United Airlines	Dec 9, 2002	Apr 3, 2003	Feb 3, 2003
US Airways	Aug 11, 2002	Aug 14, 2002	Jul 1, 2002
US Airways	Sep 12, 2004	Sep 22, 2004	N/A[4]

Exhibit 2: Bankruptcy Exits of Major Airlines and Reinstatement to S&P Indexes

	Bankruptcy Exit Date[5]	Relisting Date	S&P Addition Date
American Airlines	Dec 9, 2013	Dec 9, 2013	Dec 9, 2013
Delta Air Lines	Apr 30, 2007	May 3, 2007	Jun 18, 2007
Northwest Airlines	May 31, 2007	May 31, 2007	Jun 18, 2007
United Airlines	Feb 1, 2006	Feb 2, 2006	Oct 2, 2006
US Airways	Mar 31, 2003	Oct 21, 2003	N/A[6]
US Airways	Sep 27, 2005	Sep 27, 2005	Oct 2, 2006

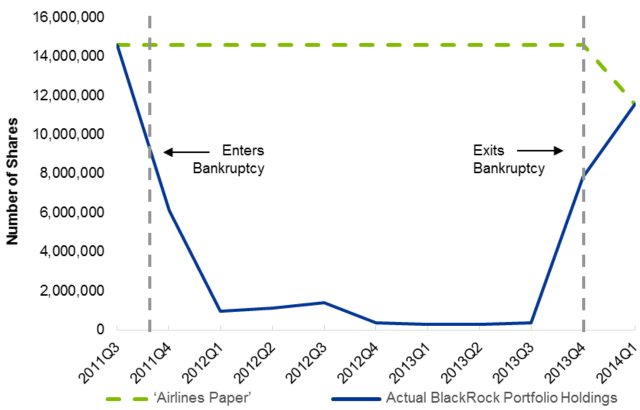
Use of Incorrect Data on Airline Holdings

The authors of the 'airlines paper' used regulatory data from 13F filings with the SEC to ascertain investor holdings. Given that index funds did not hold shares during these extended bankruptcy periods, holdings in these securities were not included on 13F filings. The authors noticed that the data did not show holdings in affected airlines during bankruptcy periods, so they chose to **override** the data from the filings with an erroneous assumption that holdings during bankruptcy are the same as those found in the 13F data for the quarter preceding the bankruptcy.

> *"Holdings are not observed during bankruptcy periods. During the bankruptcies of American Airlines, Delta Airlines, Northwest Airlines, United Airlines, and US Airways, we repeat the last observed value for percentage of shares owned"*
>
> *– Azar, Schmalz, and Tecu, "Anticompetitive Effects of Common Ownership", page 16*

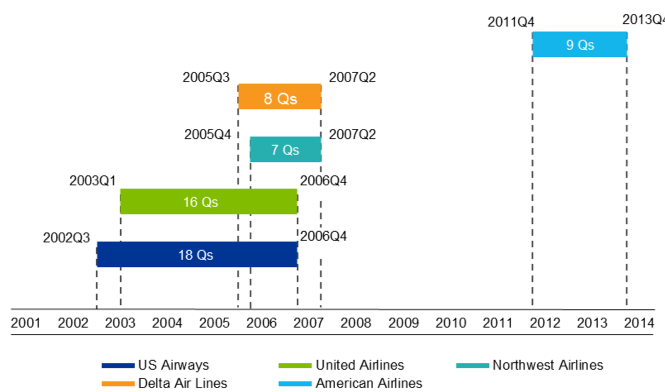
Exhibit 3 illustrates the magnitude of the discrepancy between the actual holdings of American Airlines stock in BlackRock-managed portfolios and the holdings that were used in the 'airlines paper' based on this error in the authors' data compilation. The discrepancy is in the order of millions of shares which reflects an actual ownership under 0.09%[7] versus the authors' assumption of 4.35%. This is a significant error that affected 28 out of 56 quarters in the study period. Exhibit 4 shows the periods during which the holdings data for five of the seven airlines in the study were excluded from S&P indexes, which led to grossly overstated holdings data in the 'airlines paper'.

Exhibit 3: BlackRock Equity Holdings of American Airlines[8]
2011Q3 – 2014Q1



Source: Airlines paper replication package; Thomson Reuters Spectrum; BlackRock internal data systems.

Exhibit 4: Exclusion of Airline Companies from S&P Indexes
2001Q1 – 2004Q4



Source: SEC filings and S&P announcements.

Conclusion

The 'airlines paper' used this incorrect data in their claims regarding institutional investor 'control' of airlines. This data was a critical input to their model. However, the authors' decision to override actual data with incorrect data for half of the quarters of the 'airlines paper' seriously calls into question the credibility of the 'airlines paper' and the 'common ownership' theory which heavily relies on this paper's results.

In our letter to the FTC, we show that the statistical significance of the findings of the 'airlines paper' is eliminated by changing the 'control' variable to zero just during the actual bankruptcy. Clearly an even longer period during which these stocks are completely absent from portfolios poses a serious issue for the 'airlines paper' and 'common ownership' theory it asserts. Assuming asset managers 'control' companies they don't even own in client portfolios is clearly without merit.

The 'airlines paper' reflects a lack of understanding of index inclusion rules, 13F filings, and other basic aspects of asset management. Given these misunderstandings and the use of incorrect data, this paper cannot be relied upon as a source of information on competitive effects, and certainly should not form the basis for far-reaching policy decisions that would have significantly negative consequences for investors, access to capital and the functioning of investor stewardship.

Notes

1. José Azar, Martin C. Schmalz, and Isabel Tecu, The Journal of Finance, "Anticompetitive Effects of Common Ownership" (updated May 2018), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2427345 ('airlines 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.
2. Northwest Airlines agreed to merge with Delta Airlines in 2008Q2; Continental Airlines agreed to merge with United Airlines in 2010Q2; and US Airways agreed to merge with American Airlines in 2013Q1.
3. 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.
4. 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.
5. 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.
6. See Footnote 4.
7. Holdings in portfolios actively-managed by BlackRock.
8. The 'Airlines Paper' 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. 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 'Airlines Paper' line.

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