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Democracy for Sale: Examining the Effects of Concentration on Lobbying in the United States

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INTRODUCTION AND BACKGROUND

The bigger companies get, the more powerful they become. A large majority of Americans distrust concentrated economic power, and criticism of the world's largest companies is a regular part of discourse within America's political parties and around the world. Research has borne out the power of money in politics. Baumgartener et al. demonstrated that policy outcomes favor the interest group with the most lobbying resources.[1] Gilens and Page, for example, show that lobbying groups disproportionately represent business interests compared to more democratic interests and that these business lobbying groups are, dollar for dollar, twice as influential as other groups.[2] It is no surprise then that business interests employ more lobbyists, dispatch more lobbyists per issue, lobby on more issues, and spend more money compared to other interest groups.[3]

Corporate lobbying works. A number of studies show that the amount spent on lobbying positively impacts a firm's equity returns[4] and market share.[5] Firms that engage in lobbying also appear to have lower effective tax rates than those that do not.[6] Moreover, a growing body of scholarship suggests that lobbying can directly benefit individual firms or sub-industries through tax breaks[7] or government contracts.[8] In many instances, companies receive exorbitant returns on this type of lobbying, like Boeing, which reportedly received a return of $7,250 for every $1 spent.[9] Other studies show companies directly avoiding applicable regulations in their industry. Firms that spend more money lobbying under anti-dumping laws can, for example, obtain favorable protection from foreign competition even when that competition is fair.[10] More troubling for antitrust enforcement, one study shows that lobbying allows firms to "receive favorable antitrust review outcomes."[11]

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1 *See* Frank Baumgartner et al., Lobbying and Policy Change: Who Wins, Who Loses, and Why, 233, 235 (2009).

2 *See* Martin Gilens and Benjamin I. Page, Testing Theories of American Politics: Elites, Interest Groups, and Average Citizens, 12 Perspectives on Politics 564–581 (2014).

3 McKay, Amy, Buying Policy? The Effects of Lobbyists' Resources on Their Policy Success, 65-4 Political Research Quarterly 908, 909 (2012).

4 *See* J.H. Kim, Corporate Lobbying Revisited, 10 Business and Politics, 1 (2008) (analyzing lobbying's effect on equity returns).

5 *See* Brian Shaffer et al., Firm Level Performance Implications of Nonmarket Actions, 39 Business and Soc. 126 (2000) (analyzing lobbying's effect on market share).

6 Brian Richter et al., Lobbying and Taxes, 53 Am. J. Pol. Sci 893, 893 (2009) ("Increasing registered lobbying expenditures by 1% appears to lower effective tax rates by somewhere in the range of .5% to 1.6% for the average firm that lobbies.").

7 Raquel Meyer Alexander et al., Measuring Rates of Return for Lobbying Expenditures: An Empirical Case Study of Tax Breaks for Multinational Corporations, 25 J.L. and Pol., 401, 404 (2009) ("corporations that lobbied for the tax benefit spent $282.7 million on lobbying expenditures and received $62.5 billion in tax savings, resulting in an average return in excess of $220 for every $1 spent on lobbying, or 22,000 percent.").

8 Matt Miller, Make 150,000% Today!, *Fortune* (Jan. 27, 2006) https://money.cnn.com/2006/01/27/news/economy/lobbyist_fortune/index.htm (reporting how Lockheed Martin's $55 million lobbying expenditures generated roughly $90 billion in government contracts: a 163,536% return).

9 Jason W. Ridge et al., Beyond Lobbying Expenditures: How Lobbying Breadth and Political Connectedness Affect Firm Outcomes, 60 Academy of Mgmt. J. 1138, 1138 (2017) (citing Ben Hallman, Boeing got $7,250 in tax breaks for every $1 it spent lobbying, *Huffington Post* (2014)).

10 Jeffrey Drope, Wendy Hansen, Purchasing Protection? The Effect of Political Spending on U.S. Trade Policy, 57 Pol. Research Quarterly 27, 27, 35 (2004) ("Evidence suggests, however, that firms use this law as a means of seeking protection from foreign competition, even when that competition is fair... Systematic analysis of policy outcomes suggests that, even when controlling for economic hardship, the more money that firms and associations that favor protection spend...the more likely is it that they will enjoy an affirmative decision").

11 Mihir N. Mehta et al., Political Influence and Merger Antitrust Reviews, SSRN Electronic Journal, 34 (2017) available at https://editorialexpress.com/cgi-bin/conference/download.cgi?db_name=CICF2017&paper_id=1040.

This report proposes to link the power of corporations over democratic government with the monopoly power of those businesses. Specifically, it examines the correlation between how concentrated an industry is and how much power over government that industry has year to year. It uses increases in special interest lobbying spending as an analytical mechanism to measure power over democratic government. Across selected industry case studies of internet companies,[12] pharmaceutical manufacturing, and oil and gas production, the report finds a noteworthy relationship. In all three industries, concentration appears to predict elevated lobbying spending. In the oil and gas industry as well as among internet companies, the more market power a corporation acquires, the more it lobbies. In the pharmaceutical industry, the data is even more compelling. When pharmaceutical companies gained market power, they lobbied more, and when they lost market power, they lobbied less. One tentative conclusion from this analysis is that monopolies seek to acquire political power, whereas competitive businesses focus on competing with each other instead of dominating public rule-making bodies. The relationship is not perfectly correlated and the measure attempts to examine a very complex political dynamic. That said, it appears there is a significant empirical link between increased corporate consolidation and increased corporate political power. Assuming the relationship exists, it supports a structuralist policy vision focused on policing bigness itself. In short, the results of this report suggest that not only is big business good at lobbying, but that bigger business leads to more lobbying. That means monopoly is a threat to representative democracy—and that protecting our democracy requires effective antitrust.

THE EMPIRICAL RELATIONSHIP BETWEEN CONCENTRATION AND LOBBYING – CASE STUDIES

OVERVIEW

The following case studies explore the relationship between concentration and lobbying spending. The data suggests that changes in concentration predict changes in lobbying spending. Standard political thinking on lobbying suggests a transactional element: if a firm wants to merge or otherwise engage in regulated or government-adjacent business activity that would increase concentration, one would expect lobbying spending to increase before the

12 This primarily includes digital platform companies like Google, Facebook, Amazon, and Netflix. It does not extend, for example, to internet providers and other internet infrastructure companies.

merger or concentration-related activity. In the case studies that follow, it appears instead that concentration predicts lobbying spending. It is not that firms lobby to get big, it is that they get big and then expand lobbying.[13]

A potential narrative explaining this link may be that competitive, unconcentrated industries do not have excess resources to devote to lobbying efforts because their efforts are all devoted to competition. Existing scholarship, notably the work by Grullon et al., suggests that concentration is rising across U.S. industries and this concentration is linked to increased profits.[14] In industries where concentration, market power, and thus profits are rising, lobbying expenditures may rise in response to additional resources becoming available. With less to fear from competition, larger firms may reasonably decide it is more prudent to seek rents and power from the government through lobbying rather than trying to make their goods and services better.

There is also a logical explanation for the lag. The process of turning concentration into profits and then spinning those profits into lobbying in Washington, D.C., would likely take some time. It may take roughly three to four years to first realize higher profit margins from increased market power in a more concentrated market, then marshal those new revenues into lobbying expenditures.

That could explain why concentration increases would predict lobbying increases. Conversely, if industries deconcentrated, this narrative suggests their lobbying would decrease shortly after as the market demands more focus on competitive pricing, research, or innovation to stay afloat. Indeed, the case studies that follow suggest this occurs.

DATA

The below analysis predominantly relies on two datasets: industry performance data and lobbying expenditures. Each sample is discussed in turn.

COMPUSTAT-CRSP INDUSTRY DATA FOR CONCENTRATION CALCULATIONS

The data source for industry concentration was the Compustat-CRSP merged historical dataset over the period 1993-2017.[15] Data from this source was pulled without filters, including all relevant linked performance data from every firm available in the dataset unless otherwise

13 It may be that the lobbying decreased because the industry is as consolidated as participants believe it can be at the moment and thus concentration plateaus or decreases after a lobbying decrease in the absence of substantial mergers. Conversely, dropped lobbying in this narrative may suggest newly merged firms have no need for lobbying ahead of merger review and concentration may still increase as large firms extend their market dominance. The logic of this narrative is thus somewhat less clear as to what might happen in the case of decreasing lobbying expenditures. The data in the case studies below generally does not support this relationship though, so working out the logic of this hypothetical is less pressing.

14 Gustavo Grullon et al., Are US Industries Becoming More Concentrated? 3-5 (August 31, 2017) (Finding that "market concentration has systematically increased in over 75% of US industries…that the changes in concentration levels are positively correlated with return on assets…that M&A transactions have become more profitable to shareholders in general, and even more so in concentrated industries…[and] that returns to investors of public firms increase as industries become more concentrated.").

15 Industry concentration calculated from this source as measured by HHI is hereafter simply referred to as "concentration."

explicitly stated below. The Compustat-CRSP dataset comes with some complications. First, because the dataset covers only publicly traded corporations, there may be concern that the concentration picture it paints is inaccurate. Some may argue that a measure like the U.S. Census' concentration numbers is a better data source. To assuage some of these concerns, Grullon et al. compared their analysis of the Compustat-CRSP dataset to the U.S. Census concentration numbers as well as a number of other potential sources and found that the concentration trend seen in the Compustat-CRSP dataset is "robust to different measures of product market concentration, and prevalent across the vast majority of U.S. industries."[16]

In determining which three industries to include in this case study, I took care to select industries in which very significant portions of market share are held by publicly traded firms to assuage concerns about the representativeness of the data. For this case study, three industries were chosen: pharmaceuticals, internet companies, and oil and gas production. Pharmaceuticals and oil and gas fit because they are well-established American industries in which companies require large sums of money, like those available from public capital markets, to effectively compete. Internet companies like Amazon and Google on the other hand are part of a younger, supposedly more dynamic industry, in which companies sometimes do not generate any profit until well after entering public capital markets.[17]

These markets were selected from within the Compustat-CRSP sample mostly according to NAICS codes.[18] Unlike the analysis in Grullon et al. and Irvine and Pontiff,[19] this analysis uses five- and six-digit NAICS codes to construct more tailored industries that better line up with the classifications used in the lobbying dataset discussed below. Pharmaceutical data was limited to medicinal manufacturing, pharmaceutical preparation manufacturing, and pharmaceutical wholesalers.[20] Oil and gas production data covered five classifications: crude petroleum extraction, natural gas extraction, well drilling, oil and gas support activities, and petroleum refineries.[21] Finally, internet companies were selected out of the following classifications: internet job listing services, auctions and internet retail, internet publishing and web search portals, data processing and hosting,

16 Grullon et al., supra note 114, at 15.

17 Take Amazon, for example, revenue neutral for over 20 years. Amazon: Nearly 20 Years in Business And It Still Doesn't Make Money, International Business Times (Dec. 18–2013), https://www.ibtimes.com/amazon-nearly-20-years-business-it-still-doesnt-make-money-investors-dont-seem-care-1513368.

18 More information on the NAICS industry classification system is available on the Bureau of Labor Statistics website: The North American Industry Classification System in the Current Employment Statistics Program, Bureau of Labor Statistics, https://www.bls.gov/ces/cesnaics.htm. This classification offers a number of advantages, some of which are discussed in Grullon et al., supra note 114, at 11. ("First, NAICS codes are based on a consistent, economic concept, and group together establishments that use the same or similar production processes. Under the SIC system, some establishments are classified according to production processes, but others are classified using different criteria, such as class of customer, which creates inconsistent groupings across firms. Second, since all government agencies have switched to NAICS classification by the year of 2003, using NAICS industry code system allows for an easier merge between the Compustat-CRSP data on one side, and economic indicators, provided by the US Census Bureau and Bureau of Labor Statistics, on the other.")

19 Grullon et al., supra note 114, at 11; also, generally, Irvine, P.J., and J. Pontiff, Idiosyncratic Return Volatility, Cash Flows, And Product Market Competition, 22 Rev. Financial Studies 1149-1177 (2009).

20 These categories are represented by NAICS codes 325411, 325412, and 424210.

21 These categories are represented by NAICS codes 211111, 211112, 213111, 213112, and 324110.

and electronic shopping and mail-order houses.[22] Because these categories don't exactly fit the concept of internet companies, inappropriate companies were removed from the dataset via a manual review.[23]

After defining and gathering all the above industry data, a manual review scanned for any duplicate reports or double-counting of revenue figures in the Compustat-CRSP data. Casting a wide net with no additional filters and including all linked data leaves room for potential double-counting as companies report updated revenue figures for previous years. Updated reporting can appear as redundant revenue in the data. All such redundancies were manually reviewed and removed, favoring the most reliable updated numbers. After this manual review, an additional manual review compared revenue data with publicly available financial reports to confirm the accuracy of annual revenue figures.

Some scholars occasionally raise concerns over using Compustat-CRSP data for HHI calculations, as this analysis does.[24] Beyond the robust analysis by Grullon et al., which confirms Compustat-CRSP merged data for HHI accuracy, and the multiple layers of manual review, census data on the market share of the top four firms in the pharmaceutical space helps confirm the trend of concentration.[25]

CENTER FOR RESPONSIVE POLITICS LOBBYING DATA

The initial dataset for lobbying expenditures came from the Senate Office for Public Records, republished by the Center for Responsive Politics.[26] Lobbying expenditure data subsets were selected according to the industry breakdown available on the Center for Responsive Politics website.[27] Individual contributions include industry advocacy groups, as well as individual corporate contributions to lobbying. No political campaign contributions were included, only lobbying expenditures for current government bodies and officials. No other filters or sub-selections applied. After consolidating all available industry lobbying data from 1998 to 2018 for each industry group, each contribution was manually adjusted for inflation using data

22 The lobbying data uses the category "internet companies" (discussed below), so it made sense to organize companies into this category despite the relative imprecision of this term. The categories listed are represented by NAICS codes 561311, 454111, 519130, 518210, and 454110.

23 The most obvious removals were of mail-order companies and various manual auction companies. However, a number of other companies were partially or wholly removed because their main business activity did not fit with the conception of "internet companies." Companies removed for this reason include Spiegel CLA, Corporate Express, Micro Warehouse, Fingerhut, Lands End, Wiking Office Products, Home Shopping Network, Design Within Reach, Delias Inc, Skymall, Specialty Catalog Corp, Gander Mountain, and Provell. The term "internet companies" is, of course, relatively new. Data for Amazon, for example, does not even show up in the historical data until 1995. As such, companies like IBM, whose massive computer manufacturing apparatus indeed helped usher in the internet age, were still not included in the classification of "internet companies." Similarly, other companies that made significant use of electronic data processing were still not primarily in the field of internet companies for all or most of their lives. Companies removed for this reason include Reuters (before 2001, with the launch of Globex and the transition to more online offerings), Escue Energy, Lyris (before 2005), Diagnostek, ADP, and Liberty (before 1995).

24 *See* e.g., Jan Keil, The Trouble with Approximating Industry Concentration from Compustat, 45 J. of Corp. Fin. 467 (2017).

25 Figure A in the appendix demonstrates this trend with the caveat that Census data occurs only every five years and thus misses the bumps and spikes in concentration data. This rough check was only performed for pharmaceuticals however because Census data was not available for large swaths of the oil and gas market as defined below, and because the internet company classification was somewhat customized away from its native NAICS categories to fit the lobbying data categories below.

26 Industry lobbying expenditures calculated from this source are hereafter simply referred to as "lobbying."

27 Lobbying Spending Database, Center For Responsive Politics https://www.opensecrets.org/lobby/top.php?indexType=i&showYear=2018.

from the U.S. Department of Labor's Consumer Price Index.[28] This ensured that earlier gross dollar expenditures were not improperly discounted compared to their effective value at the time of expenditure. A manual review of each individual contribution ensured that most major contributors were represented in both lobbying classification and revenue data. Annual totals generated from individual inflation-adjusted expenditures for each industry constitute the final dataset for lobbying expenditures.

CASE STUDY: INTERNET COMPANIES

The first industry case study focuses on internet companies. The primary data points for this analysis are the inflation-adjusted lobbying expenditures discussed above and Herfindahl-Hirschman Index (HHI) scores for concentration. Industry revenue data from Compustat-CRSP serves as the basis for the HHI scores calculated and totaled for each firm in each year. The internet companies data presents a bit of a challenge because classification of what are now obviously recognizable as the online tech giants—like Facebook, Google, Netflix, and Amazon—did not fit neatly into the NAICS categories that are used to define market data and thus calculate concentration. To address this challenge, the data was reviewed manually to remove entries that did not fit the mold of primarily internet companies. The resultant category covers e-commerce companies like Amazon, and digital services companies like Google, Facebook, Microsoft, Oracle, etc. The relatively broad categorization, along with the manual review, was designed to create a dataset that most closely approximates what a layperson would think of as a primarily internet-based company. The other obvious challenge is the youth of the industry. Unlike the other two case study industries, which have decades on decades of entrenched players, this industry is comparatively new.[29]

Internet companies are big spenders in the lobbying market, especially recently: the industry spent nearly $80 million lobbying in 2020 and well over half a billion inflation-adjusted dollars since 1998.[30] Are the increases in concentration and lobbying expenditures correlated? This relatively recent rise makes for difficult and volatile data comparisons. Because of the way HHI measures market concentration, new markets can appear massively concentrated in their early years in the Compustat dataset, where few firms are publicly traded, even though there is a thriving and competitive market full of nascent competitors. Similarly, as we will see, calculating logarithmic differences in lobbying is similarly volatile because of the order-of-magnitude

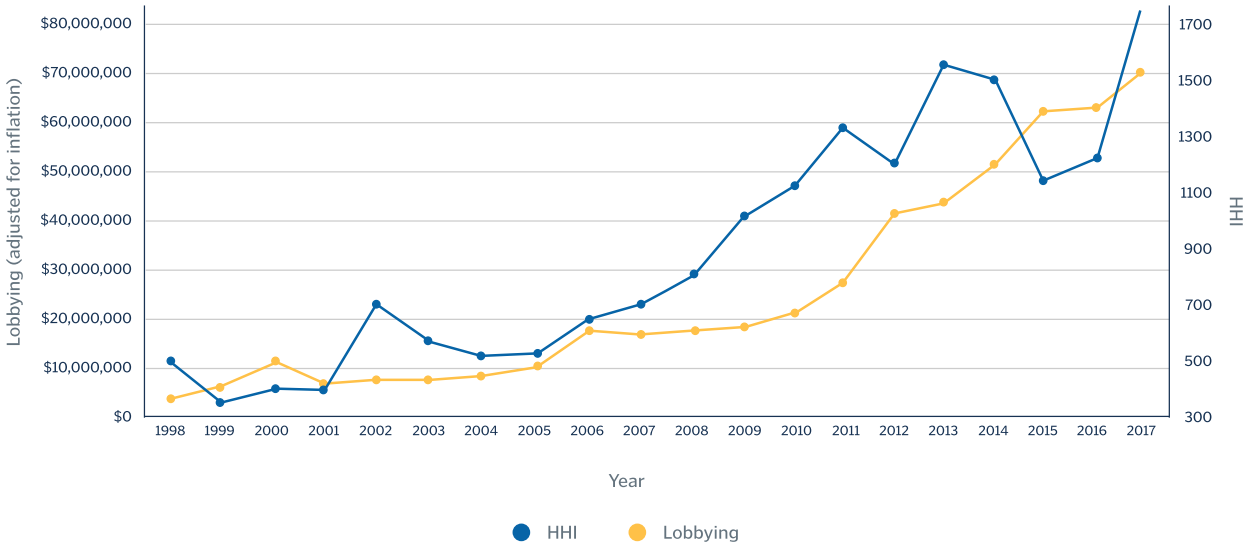
28 Consumer Price Index (CPI) Databases: U.S. Bureau of Labor Statistics, https://www.bls.gov/cpi/data.htm.

29 For context, Amazon is one of the oldest public companies in the dataset. It went public in 1997. Netflix went public in 2002. Google went public in 2004. Facebook held out on IPO until 2012. The explosion of internet companies in the dot-com bubble is a bit like a genesis moment for the industry. It is still a worthwhile case study because it tests the theory that more concentration leads to more lobbying in young as well as old industries. However, the data in the early years is very sparse, especially because this analysis uses a public-company-only estimate of the economy. The correction to this challenge was simply to use a slightly abridged dataset: the more robust public company data from when the dot-com bubble heated up. The year Amazon went public, 1997, seemed as worthy a starting point as any. As such, the concentration data and offsets for this case study cover only 1997-2017.

30 2020 Lobbying Spending Database, Center For Responsive Politics https://www.opensecrets.org/federal-lobbying/industries/summary?cycle=2020&id=B13.

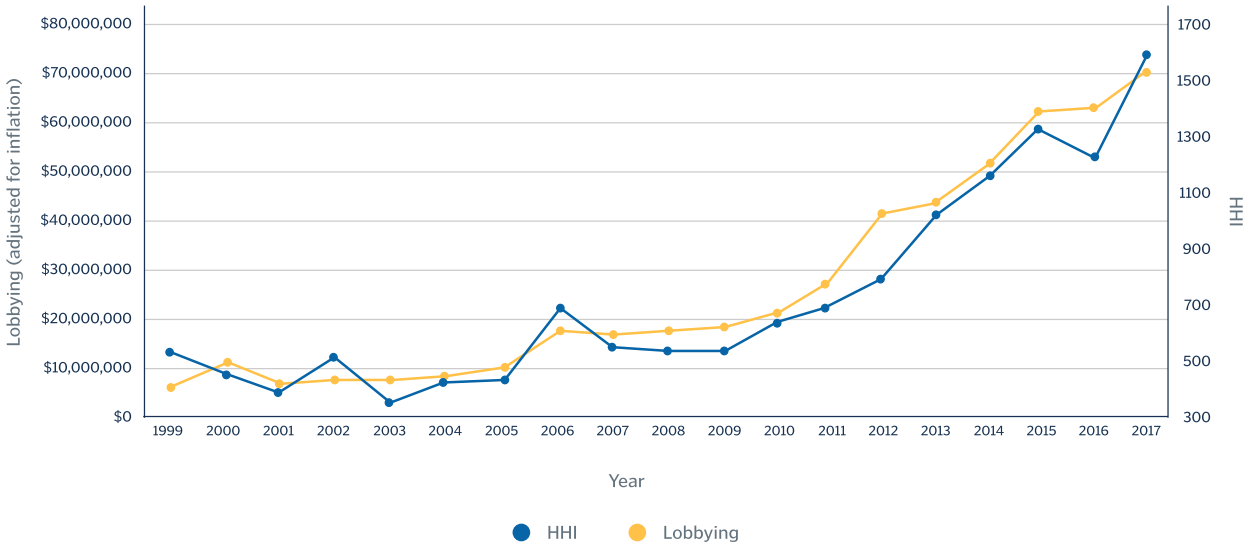
differences that appear in the early years as lobbying by the industry goes from functionally zero to a dominant player. These data issues aside, a relatively clear picture still emerges. Figure 1 reveals that both the concentration and lobbying expenditures of the industry are increasing on a mostly smooth upward path. Even still, Figure 1 appears to show HHI rising rapidly before lobbying expenditures catch up.

FIGURE 1: INTERNET COMPANIES HHI V. LOBBYING (1998-2017)



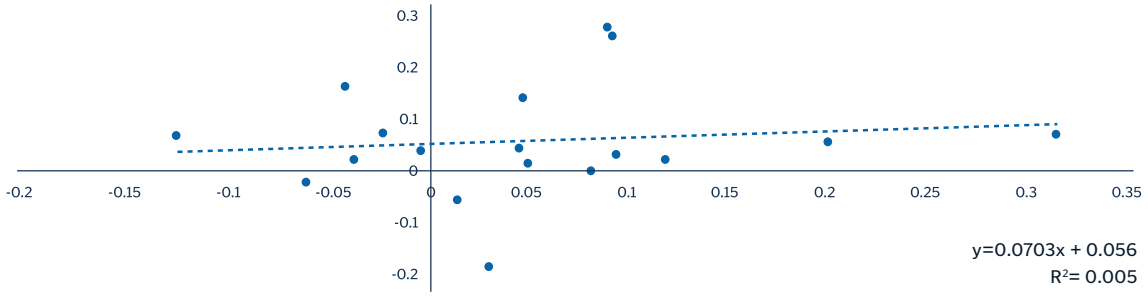
It appears these trends line up much more closely when HHI is offset forward by four years, as shown in Figure 2. This offset of the raw data is suggestive.

FIGURE 2: INTERNET COMPANIES + HHI 4 YEARS OFFSET V. LOBBYING (1998-2017)



The concern of this case study is beyond simple descriptive correlation, however. Rather, it is useful to at least try to understand a potential causal link between lobbying and concentration, if one exists. To examine this relationship, the following analysis takes the logarithm of the difference between lobbying and HHI data to regularize the scale of change. This is especially important for later combined correlations, but it is useful within the individual case studies as well.[31] These data points are then plotted against one another. More explicitly, the difference between the log of one year's lobbying to the log of the following year's lobbying was plotted against the difference between the log of HHI from one year to the log of the following year's HHI. This methodology is used in the other two industry case studies as well. This aims to capture a change in HHI against the change in lobbying in a given year, as opposed to the more general hunch that both roughly move in the same direction over time. This relationship is plotted in Figure 3. No significant relationship appears for the changes in HHI and lobbying at the same time. This suggests that the two are not tied to the same external factor and that they do not move in exact tandem with each other each year.

FIGURE 3: INTERNET LOG(HHI) DIFF V. LOG(LOBBYING) DIFF CORRELATION (1998-2017)



To simulate whether changes in concentration predict future changes in lobbying spending, the following analysis shifts the annual concentration data forward in one-year steps against lobbying expenditures. So, in practice, the changes in concentration in the year 2000 would be set against lobbying from the year 2001 for a one-year forward offset. Conversely, to simulate lobbying as a predictor of concentration, HHI values shift backward in time against lobbying expenditures. Figure 4 displays the R^2 value for the data when HHI is set forward in one-year

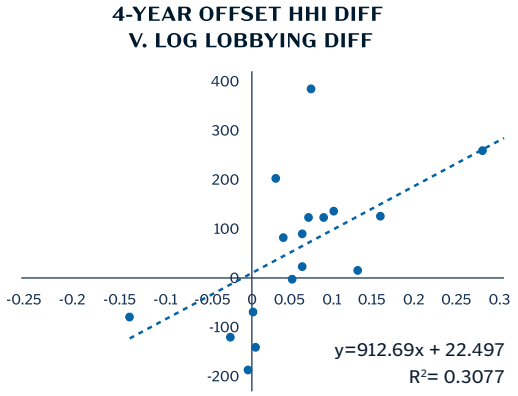
31 The youth of this industry in particular seems to make both the HHI and lobbying numbers more volatile in smaller numbers — especially in ways that affect order of magnitude normalizing operations like log transformations — than may be expected in other industries.

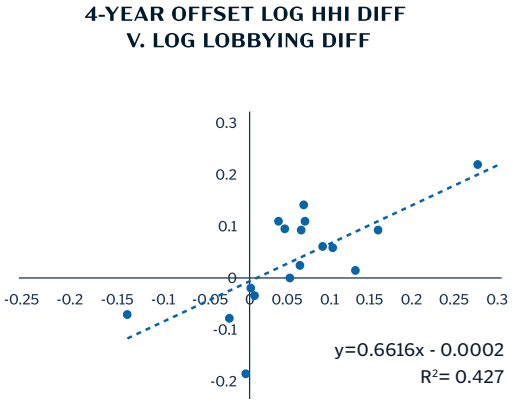
steps. In these offsets the lobbying of a given year is correlated instead with the concentration of one, two, three, four, or five years earlier.[32] The strongest relationship in this dataset is for the four-year forward offset. This suggests that the concentration of an industry in a given year contributes to the lobbying by that industry four years later. While the correlation is of a single industry and not enough to make a sweeping claim about the relationship generally, it remains noteworthy. The visual trend in Figures 1 and 2 offer more confidence that the relationship is not a fluke in the data.

Figure 5 examines offsets in the opposite direction to confirm that there is not a strong predictive relationship when lobbying is used to predict future concentration. Figure 5 displays one-year offsets backward in time, with the R^2 values for two sets of regressions: the difference and log of the difference of HHI values set backward in time in one-year steps against the log of the difference of lobbying in a given year. Opposite to Figure 4, a year's lobbying is correlated with concentration one, two, three, four, or five years later.[33] The correlations of the backward offsets shown in Figure 5 never suggest a strong non-random relationship; their R^2 values never reach .1 in any offset. This suggests that there is less value in using lobbying spending to predict future HHI in this industry and that the relationship is one directional. In other words, increased concentration can predict increased lobbying but not the other way around.

FIGURE 4: INTERNET DIFF & LOG-DIFF HHI V. LOG-DIFF LOBBYING WITH *FORWARD* OFFSET

HHI Year Offset	One-Year	Two-Year	Three-Year	Four-Year	Five-Year
R-Square for HHI Diff v. Lobbying Log Diff	0.0018	0.0038	0.0466	**0.3077**	0.0022
R-Square for HHI Log Diff v. Lobbying Log Diff	0.0268	0.0065	0.0804	**0.427**	0.001



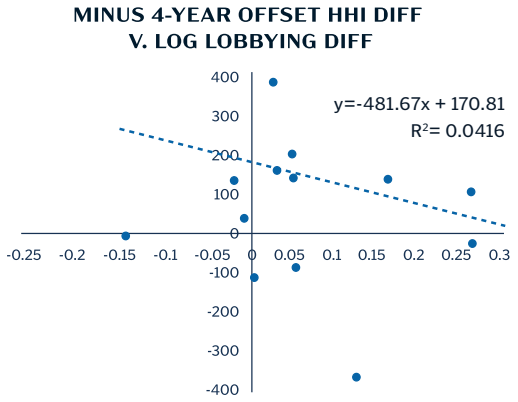


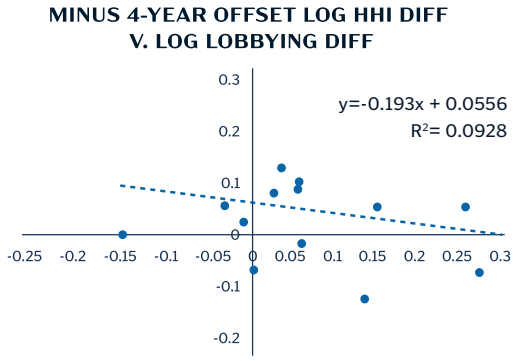
32 To offset these values and avoid leaving blanks, Compustat-CRSP data from prior to 1998 was used to fill in earlier years.

33 Each offset here includes one less pair than the total sample because future HHI values are not available and only 20 years of lobbying expenditures are available in this data source. Thus, the sample size is n=19 for a one-year offset backward and n=15 for a five-year offset.

FIGURE 5: INTERNET LOG-DIFF HHI V. LOG-DIFF LOBBYING CORRELATION WITH *BACKWARD* OFFSET

HHI Year Offset	Minus One-Year	Minus Two-Year	Minus Three-Year	Minus Four-Year	Minus Five-Year
R-Square HHI Diff v. Lobbying Log Diff	0.0258	0.0104	0.001	**0.0416**	0.0004
R-Square HHI Log Diff v. Lobbying Log Diff	0.0224	0.0704	0.0526	**0.0928**	0.0151





When offset four years forward, the HHI value of internet companies predicts the industry's lobbying rather significantly. The trend line of the four-year offset for the log-diff of HHI and the log-diff of lobbying in Figure 4 explains roughly 43% of the variation in lobbying expenditures by internet companies. As a single indicator this is potentially notable. Looking back to Figure 2 again shows how the HHI trend of four years prior is nearly identical to present lobbying.

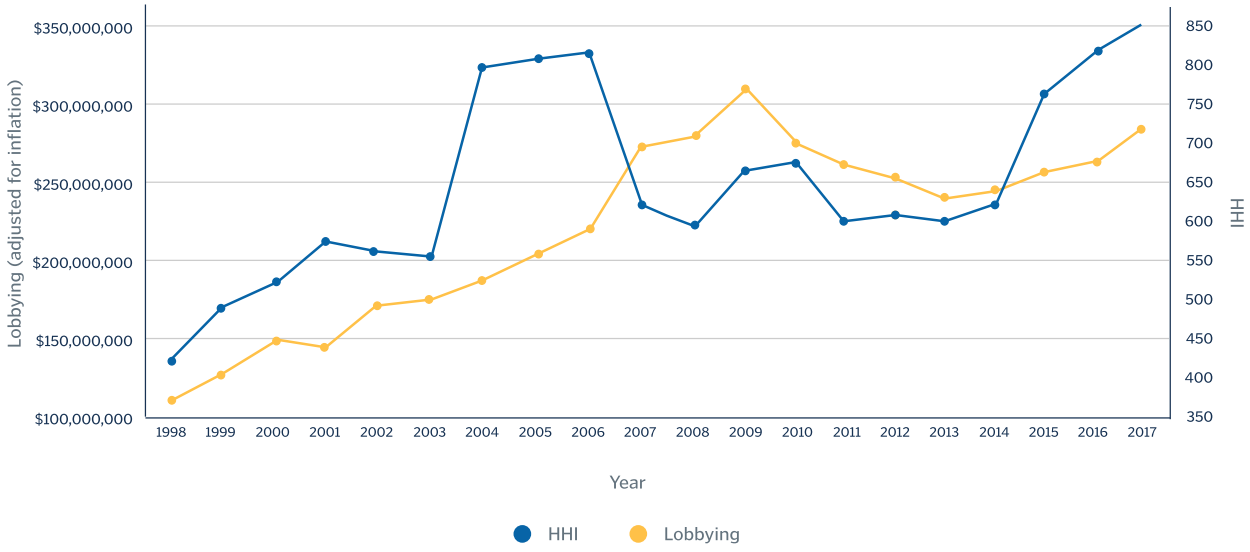
With such a tight fit between lobbying expenditures and HHI at a four-year offset, it appears at first blush that the factors are obviously related to one another. The internet companies industry presents a consistent and linear dataset apparently unaffected by the 2008 recession or any major legislative event in the industry. The trend is a smooth upward march of concentration, followed four years later by lobbying to match. This industry case study supports the initial hypothesis that rising concentration leads to rising lobbying expenditures some years after. But it does not yet provide enough information to fully refute the other hypotheses and may also obscure other complications that may emerge in more dynamic datasets. The pharmaceutical and oil and gas cases offer insight into these complications.

CASE STUDY: PHARMACEUTICALS

The pharmaceutical industry is one of the few industries that show a decrease in concentration levels, as well as an increase, in the period studied in this paper. The industry is also regularly the top spender on lobbying in the United States; in 2020 it spent over $306 million in reported lobbying of the federal government.[34] Pharmaceuticals are structured by a complex legal framework involving government-created intellectual property rights.[35] This fact alone makes the industry a natural place to look for a relationship between concentration and lobbying expenditures. The relatively recent passage of the Affordable Care Act—signed into law in 2010[36]—and the obvious motivation for lobbying that might surround such an event complicates the study of this industry, as does the passage of the Medicare Prescription Drug, Improvement, and Modernization Act of 2003. While these factors may create noise in the dataset, there is still an apparent relationship.

Graphing HHI scores and lobbying expenditures together demonstrates a sharp increase in both HHI and lobbying expenditures, but at different times. Notably, it appears lobbying expenditures lag behind HHI by several years. Both follow a similar pattern: rising then falling to a higher plateau in Figure 6. This arc, showing both rising and falling concentration and lobbying trends, offers tremendous opportunity for analysis. Unlike in the internet companies context, where the trend line is on a straight upward path, here we have the chance to see whether the relationship moves in both directions. Without this natural test, it would be difficult to test whether both lobbying and concentration are merely responding to a general, unidentified, upward force. Moreover, as in the internet companies context, the two lines appear offset, but when HHI is moved forward—in this case by three years in Figure 7—the curves appear tremendously similar.

FIGURE 6: PHARMACEUTICAL HHI V. LOBBYING (1998-2017)

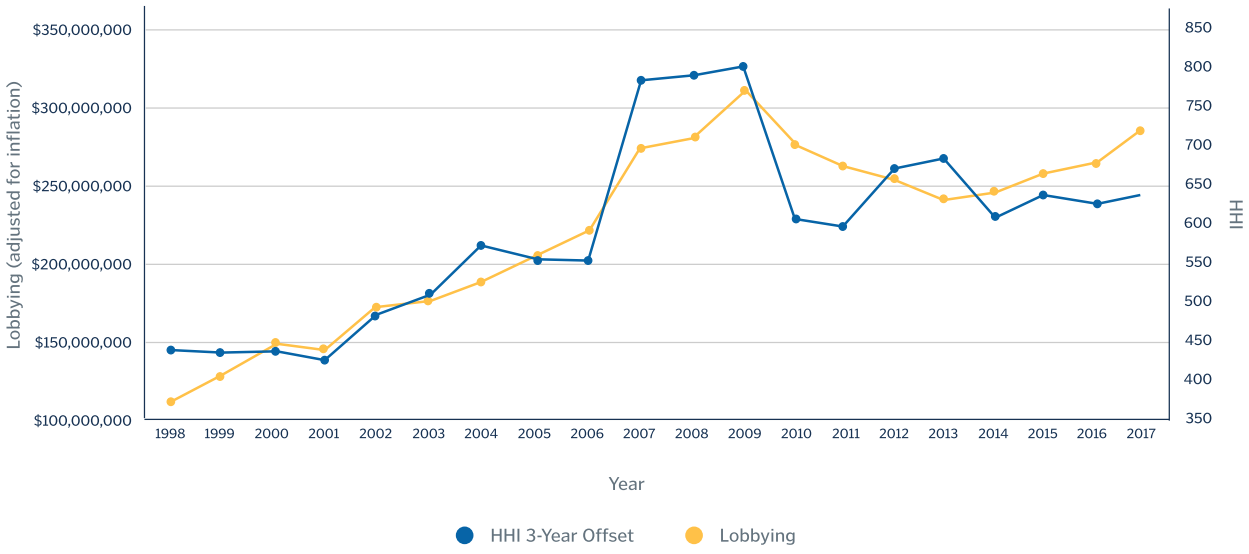


34 2020 Lobbying Spending Database, Center For Responsive Politics https://www.opensecrets.org/lobby/top.php?indexType=i&showYear=2020.

35 For instance, the Drug Price Competition and Patent Term Restoration Act, informally known as the Hatch-Waxman Act, outlines procedures and incentives for generic pharmaceutical competition as a way to stimulate price competition and access to pharmaceuticals when patents expire or are otherwise invalid. *See* generally 21 U.S.C. §355 (j).

36 Sheryl Gay Stolberg & Robert Pear, Obama Signs Health Care Overhaul Into Law, *The New York Times*, Mar. 23, 2010, https://www.nytimes.com/2010/03/24/health/policy/24health.html.

FIGURE 7: PHARMACEUTICAL HHI 3-YEAR OFFSET V. LOBBYING (1998-2017)



To further examine the relationship between HHI and lobbying expenditures, the two series are plotted against one another with HHI as the x-value and lobbying as the dependent y-value. A regression of the unmodified data shows an upward linear relationship in Figure 8. However, to get a proper sense of any potential causal relationship, it is better to transform the dataset to instead reflect year-to-year differences between lobbying and concentration data. As in the internet case study, I take the log of these differences to prevent disproportional changes from having outsize influence. Figure 9 displays this transformed data and suggests that there is not a simultaneous relationship.

FIGURE 8: PHARMACEUTICAL HHI V. LOBBYING CORRELATION (1998-2017)

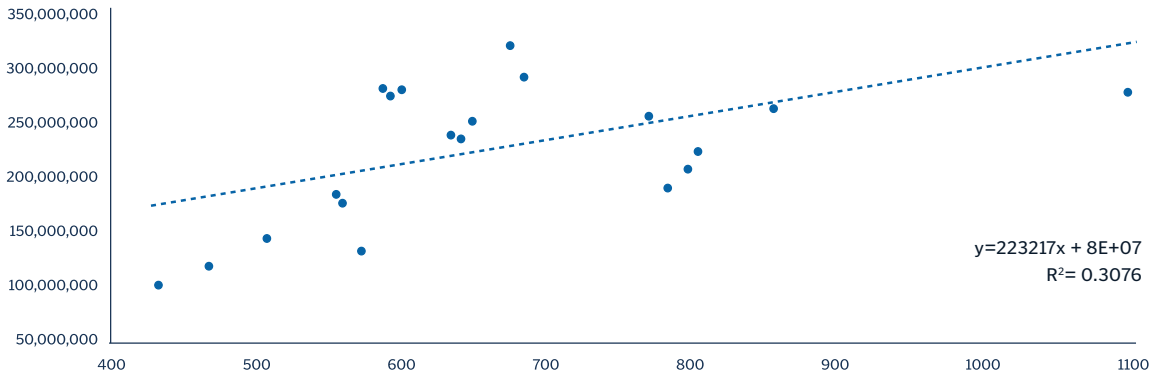
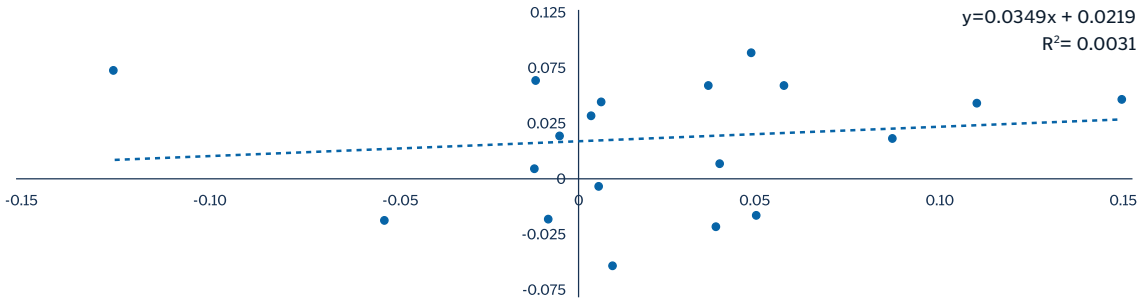


FIGURE 9: PHARMACEUTICAL LOG-DIFF HHI V. LOG-DIFF LOBBYING CORRELATION (1998-2017)



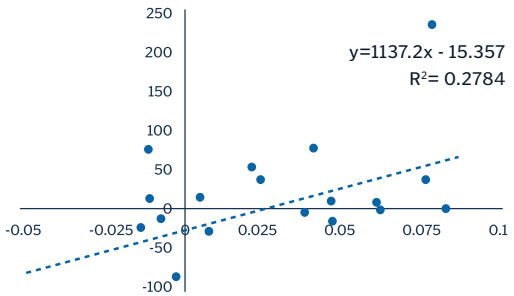
Here again, the initial offset from Figure 7 serves as a clue for a potential relationship. Namely, a more significant relationship may emerge when offsetting the log-difference of HHI by some number of years to see whether concentration predicts lobbying or vice versa. This follows the same process outlined in the internet case study. By offsetting log-diff HHI values forward in one-year steps, Figure 10 finds little relationship until a three-year forward offset. There it appears concentration from three years' prior is correlated or partially predictive of later lobbying spending. The other years do not suggest much in the way of a relationship. It appears here, as in the internet companies case study, that there may be a specific sweet spot for how long it takes for concentration to manifest any changes in lobbying. There is obvious concern that the relationship is not robust because it is not found strongly in other year offsets. Figure 11 tests again for fluke correlations and opposite relationships by performing the same offsets in the opposite direction. As before, no significant directional relationship emerges when lobbying is used to predict concentration.[37]

37 The closest relationship in offset is three years in the opposite direction, with increased lobbying predicting a decrease in concentration three years later. However, the R^2 value for this correlation is around one-third of that in the already somewhat weak correlation in the forward offsets.

FIGURE 10: PHARMA DIFF & LOG-DIFF HHI V. LOG-DIFF LOBBYING WITH *FORWARD* OFFSET

HHI Year Offset	One-Year	Two-Year	Three-Year	Four-Year	Five-Year
R-Square for HHI Diff v. Lobbying Log Diff	0.0125	0.0014	**0.2784**	0.003	0.1193
R-Square HHI for Log Diff v. Lobbying Log Diff	0.0126	0.0018	**0.2828**	0.0026	0.0128

3-YEAR OFFSET HHI DIFF V. LOG LOBBYING DIFF



3-YEAR OFFSET LOG HHI DIFF V. LOG LOBBYING DIFF

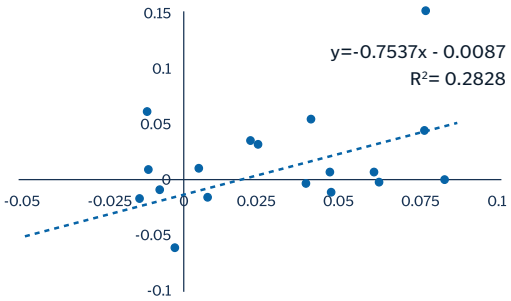
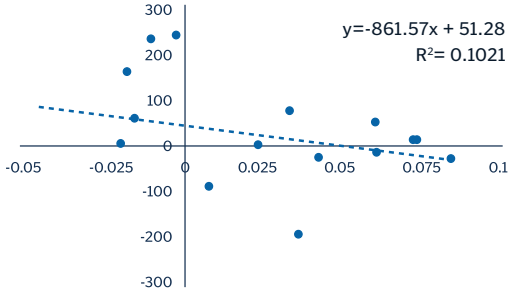


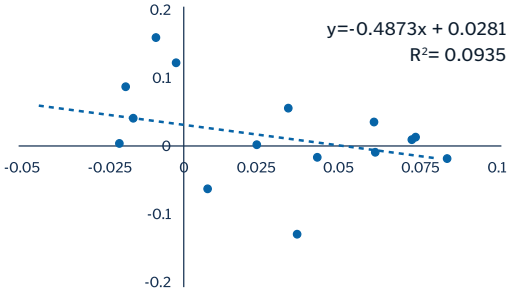
FIGURE 11: PHARMA LOG-DIFF HHI V. LOG-DIFF LOBBYING CORRELATION WITH *BACKWARD* OFFSET

HHI Year Offset	Minus One-Year	Minus Two-Year	Minus Three-Year	Minus Four-Year	Minus Five-Year
R-Square HHI Diff v. Lobbying Log Diff	0.0008	0.00008	**0.1021**	0.0066	0.0934
R-Square HHI Log Diff v. Lobbying Log Diff	0.0001	0.0003	**0.0935**	0.0479	0.0579

MINUS 3-YEAR OFFSET HHI DIFF V. LOG LOBBYING DIFF

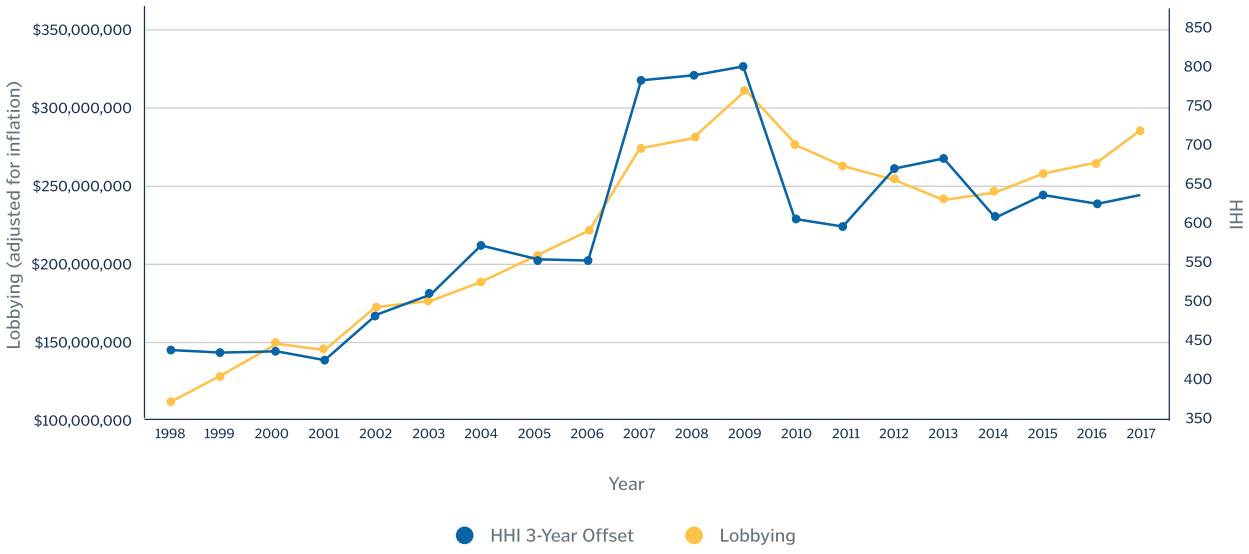


MINUS 3-YEAR OFFSET LOG HHI DIFF V. LOG LOBBYING DIFF



The three-year offset is by far the strongest relationship seen here. Figure 10's plots appear more significant when taken in context with the alignment of the data from Figure 7, reproduced below. This result, as part of a wider trend, suggests that concentration predicts future lobbying.

FIGURE 7: PHARMACEUTICAL HHI 3-YEAR OFFSET V. LOBBYING (1998-2017)



The correlation of concentration and lobbying expenditures at this three-year offset confirms the basic patterns illustrated in the internet companies study and offers further evidence that there is a positive relationship between concentration and lobbying expenditures. As with internet companies, it appears concentration may well be a predictive indicator of lobbying in pharmaceuticals. Still, with the R^2 value for the relationship at its highest point, the three-year offset suggests that concentration predicts about 28% of the movements of lobbying in the pharmaceutical industry. Concentration trends appear to precede and predict lobbying expenditures and not vice versa, though concentration is not the sole determinant of lobbying spending. The robustness of this result leaves questions. Perhaps more fine-grained data could give more data points to confirm a relationship. It is very possible that the measures are not the most accurate proxies or that these studies underestimate the correlation as well.

Oil and gas production offers one more angle on the correlation between lobbying and concentration and the predictive relationship between the two. Additional data in other industries may help confirm the predictive relationship, challenge it, or make it more robust.

CASE STUDY: OIL AND GAS PRODUCTION

Oil and gas production as an industry offers many of the same benefits for study as the pharmaceutical industry. It is one of the top lobbying industries in the United States: in fifth place in 2017, spending $126 million,[38] and spending over $2 billion total on lobbying since 1998.[39] It also contains companies known for their massive infrastructure costs and revenue flows. That makes oil and gas production a good candidate to approximate the total market by the participants in the stock market because most activity is done by the major players and most major players are publicly traded.[40] Moreover, the vibrant and volatile dynamics of the industry have created the conditions for both concentration and deconcentration in the period this case study examines. Prices in 1998 for a barrel of West Texas Intermediate Oil averaged a remarkably low $14.42—even adjusted for inflation to $22.42 in 2018 dollars—which doesn't favor the high cost of entering the industry as a new small competitor, buying rigs, leasing fields, and hiring workers.[41] This environment favoring big players eroded slowly through the mid-2000s as prices climbed comfortably above the $100 mark, enticing competition while also filling the coffers of the biggest players even more. A number of significant mergers occurred, like Shell acquiring Pennzoil-Quaker State in 2002[42] before being gobbled up in the massive Royal Dutch Shell merger in 2005.[43] When the market collapsed in the 2008 recession, new competitors and old giants began fighting for a shrinking pie: competition increased 27% from 2003 to 2012. This meant, as one publication bemoaned, the biggest firms' share of already-falling revenue dropped.[44] This narrative is complicated and made even more volatile by international oil cartels like OPEC, state oil companies in unstable states like Venezuela, and the renaissance of American oil with fracking, but the general concentration trend is one of rise and fall. As above, Figure 12 plots Compustat-CRSP based HHI values against inflation-adjusted lobbying expenditures for 1998-2017[45] and shows similar trends but with HHI preceding lobbying expenditures by a few years.

38 2017 Lobbying Spending Database, Center For Responsive Politics available at https://www.opensecrets.org/lobby/top.php?showYear=2017&indexType=i

39 Lobbying Spending Database, Center For Responsive Politics available at https://www.opensecrets.org/lobby/top.php?showYear=a&indexType=i

40 Keep in mind companies like BP, Shell, and Exxon, as well as extraction companies like Halliburton. This minimizes any concern that the CRSP dataset itself doesn't accurately reflect the state of the market.

41 WTI Crude Prices - 70 Year Historical Chart, MacroTrends https://www.macrotrends.net/1369/crude-oil-price-history-chart.

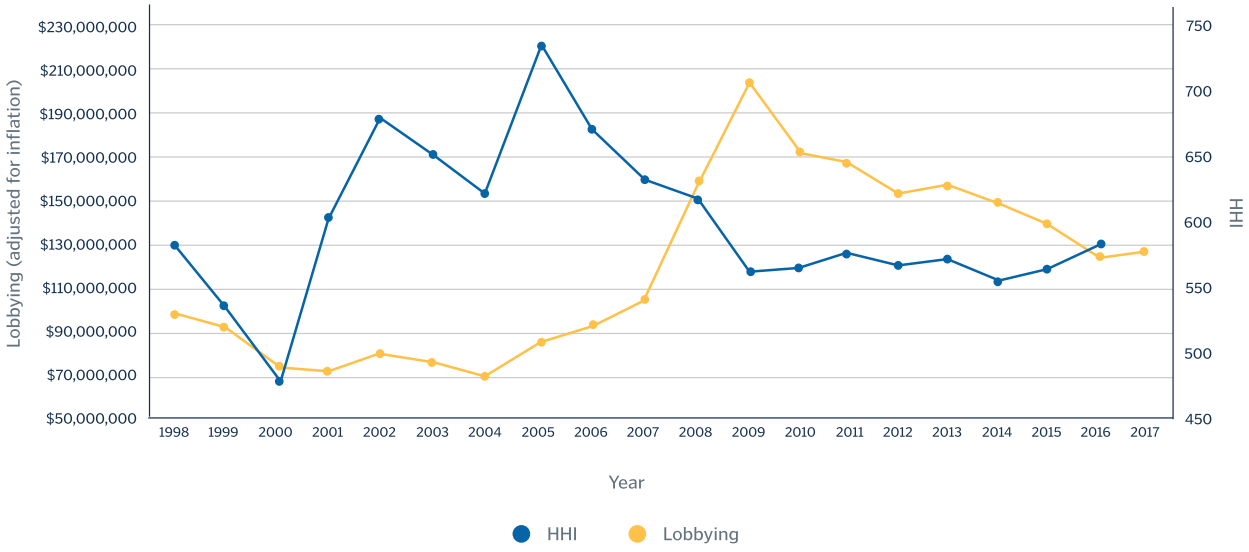
42 Shell Acquires Pennzoil-Quaker State, *CBS News* (Mar. 25, 2002) https://www.cbsnews.com/news/shell-acquires-pennzoil-quaker-state/.

43 Steve Goldstein, Royal Dutch Shell Merger Approved, *MarketWatch*, (June 28, 2005) https://www.marketwatch.com/story/merger-into-royal-dutch-shell-approved-by-shareholders.

44 Lance Froelich, Competition Grows as The Oil & Gas Industry Continues to Boom BDO 2014 Oil & Gas Risk factor Report 6 (2014).

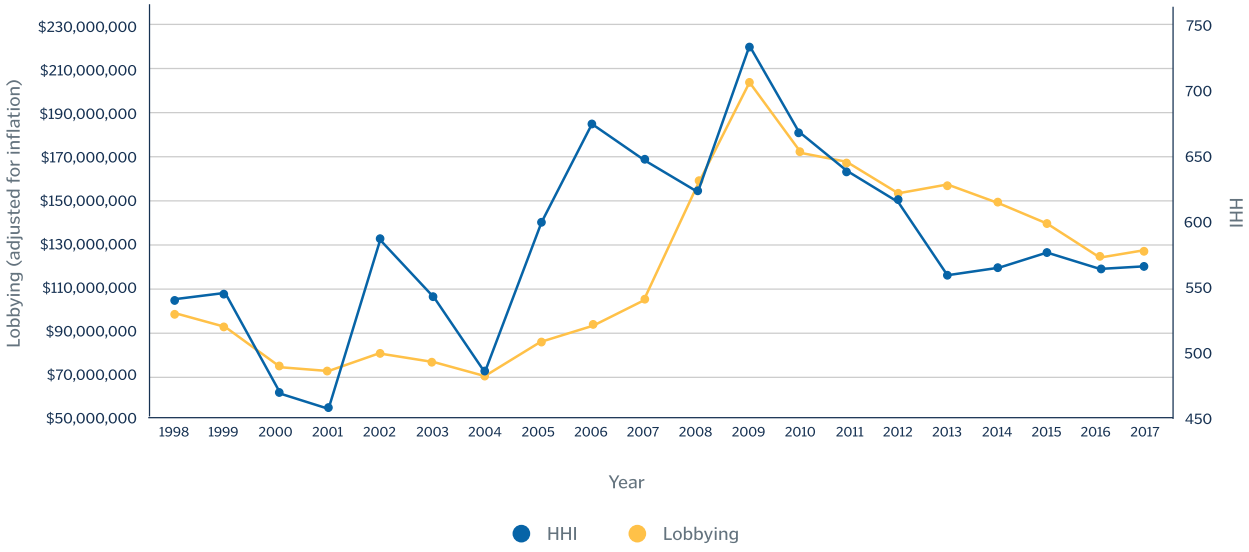
45 The 2017 value for HHI has been removed from the chart because the 2017 historical data is missing too many firms to confidently calculate an HHI score. As it stands, the score would be 914.57, an almost 350-point jump without any major changes in the market. It is excluded for all backward offsets and present calculations like R^2- and P-values.

FIGURE 12: OIL AND GAS HHI V. LOBBYING (1998-2017)



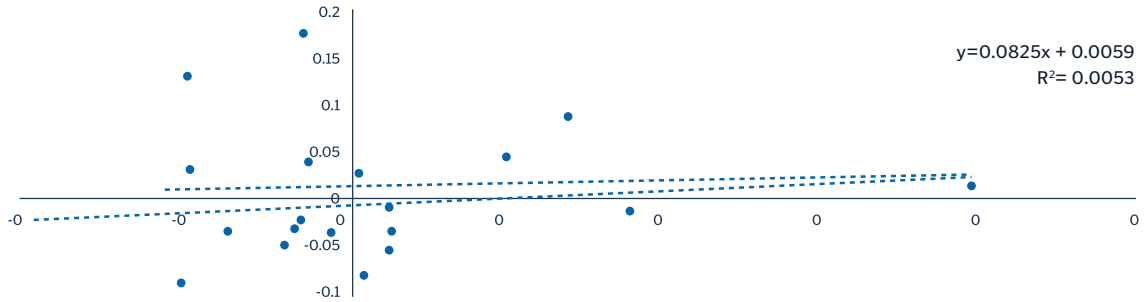
Again, the shapes of the graph look similar but offset. Advancing concentration forward against the lobbying data by four years makes the curves align more completely. This is shown in Figure 13.

FIGURE 13: OIL AND GAS HHI 4-YEAR OFFSET V. LOBBYING (1998-2017)



Following the same practice as before, Figure 14 looks for any initial relationship between HHI and lobbying expenditures. It plots the annual difference between the log of each year's HHI and lobbying from the prior year. That plot, as with those above, shows no identifiable relationship. The points are mostly random, the trend line flat, and correlation nearly nonexistent.

FIGURE 14: OIL AND GAS LOG-DIFF HHI V. LOG-DIFF LOBBYING CORRELATION (1998-2016)



However, the initial intuition that the data aligns when offset by several years delivers a more interesting correlation. Again, setting HHI values forward in one-year steps uses past concentration to predict present lobbying spending.[46] Figure 15 displays the R^2 values for both the untransformed HHI difference and the log HHI difference values, offset forward on the log of lobbying expenditures from one to five years. Again, this simulates whether concentration in the prior year, or three years prior, or five years prior, has any predictive or potentially causal relationship with the lobbying of a given year. Here, the correlation, unsurprisingly, is highest for the four-year offset that appeared to best fit in Figure 13. The correlation between concentration and lobbying in the four-year offset does not explain all the variation in the data, but it does appear to be the most explanatory of the offsets. Because it is only found in one offset, it is not a particularly robust result but may be more compelling in combination with similar case studies.

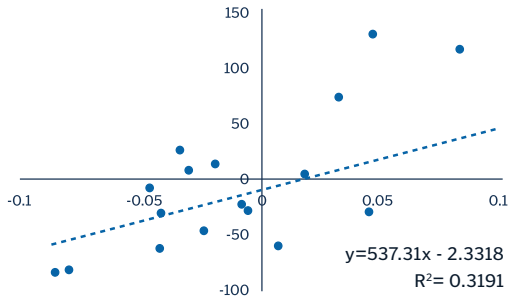
Looking at the offsets in the opposite direction, testing the hypothesis that lobbying predicts concentration, Figure 16 finds no correlation as strong as the four-year offset in Figure 15. It does suggest that a one-year backward offset is somewhat negatively correlated. That would suggest that an increase in lobbying one year may correlate with a decrease in concentration the following year. This is the first such moderate negative correlation in a backward offset in any of the case studies. Remembering back to Figure 12, the curves of lobbying and concentration are such strong, almost sine-curve shapes, it makes sense that a backward offset would come with a negative correlation. However, with the results from the previous case studies, it seems reasonable to tie-break in favor of the forward offsets and suggest that the concentration-predicting-lobbying relationship is more likely.

46 To offset these values and avoid leaving blanks, Compustat-CRSP data from prior to 1998 was used to fill in earlier years.

FIGURE 15: OIL AND GAS DIFF & LOG-DIFF HHI V. LOG-DIFF LOBBYING WITH *FORWARD* OFFSET

HHI Year Offset	One-Year	Two-Year	Three-Year	Four-Year	Five-Year
R-Square HHI Diff v. Lobbying Log Diff	0.0005	0.1672	0.0434	**0.3191**	0.0281
R-Square HHI Log Diff v. Lobbying Log Diff	0.001	0.1605	0.0328	**0.3105**	0.0236

4-YEAR OFFSET HHI DIFF V. LOG LOBBYING DIFF



4-YEAR OFFSET LOG HHI DIFF V. LOG LOBBYING DIFF

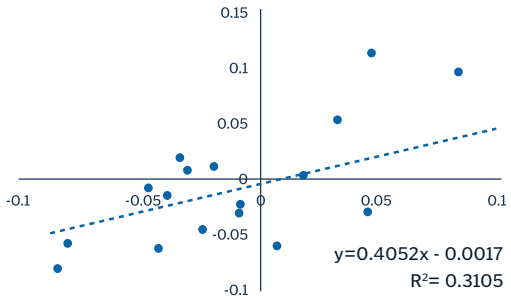
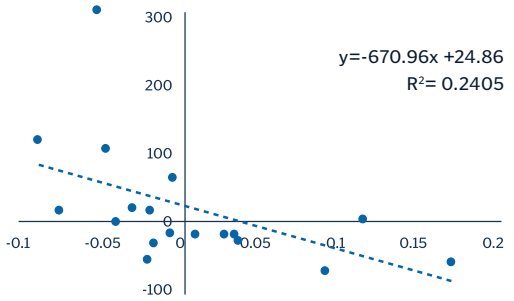


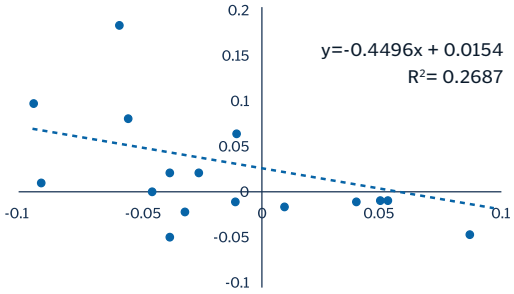
FIGURE 16: OIL AND GAS LOG-DIFF HHI V. LOG-DIFF LOBBYING CORRELATION WITH *BACKWARD* OFFSET

HHI Year Offset	Minus One-Year	Minus Two-Year	Minus Three-Year	Minus Four-Year	Minus Five-Year
R-Square HHI Diff v. Lobbying Log Diff	**0.2405**	0.0587	0.0014	0.0038	0.0676
R-Square HHI Log Diff v. Lobbying Log Diff	**0.2687**	0.0633	0.0013	0.0045	0.0668

MINUS 1-YEAR OFFSET HHI DIFF V. LOG LOBBYING DIFF



MINUS 1-YEAR OFFSET LOG HHI DIFF V. LOG LOBBYING DIFF



The two offsets with the highest correlations show more of what is going on in the correlation data. Figure 13, with a four-year forward offset, is reproduced below. Figure 17 shows the one-year backward offset.

FIGURE 13: OIL AND GAS HHI 4-YEAR OFFSET V. LOBBYING (1998-2017)

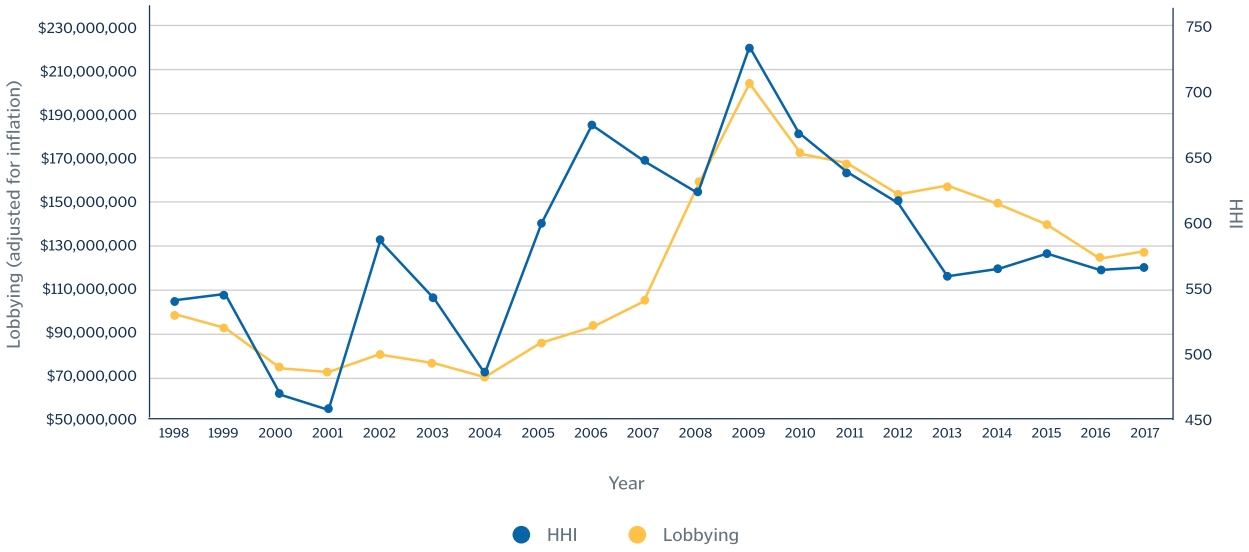
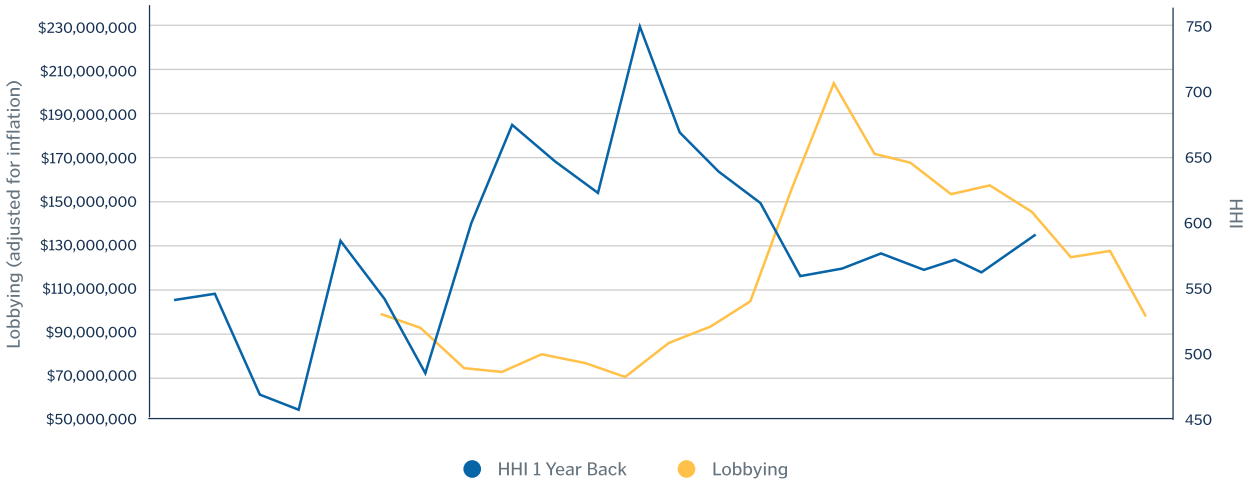


FIGURE 17: OIL AND GAS HHI 1-YEAR BACK OFFSET V. LOBBYING (1993-2017)



The path of the data is jagged, the peak of concentration or lobbying in one year giving way to rapid falls in following years. The data reflects volatility in the underlying oil market as it went through recessions, oil shocks, and technological disruptions like fracking, which enabled the shale oil boom in the United States. Taking this into account, it was somewhat unexpected to still see a moderately strong correlation between concentration and lobbying. For example, oil prices more than doubled between 1998 and 2017, even accounting for inflation, but lobbying expenditures increased only 34%. The changes in concentration seem to track more closely to the changes in oil and gas lobbying spending than oil prices themselves.

The relationship seen at the four-year offset is moderate but correlates with the two other industries. When both the upward and downward concentration curves correlate with lobbying expenditures, the narrative gains credibility because it is less likely to be a "rising tide lifts all boats" story. In both the oil and gas industry and the pharmaceutical industry, the correlations with an offset appear significant and a spike in lobbying expenditures occurred around the 2007-2009 recession, suggesting that lobbying spending was not just from generally good economic times. These findings are not definitive for the relationship between concentration and lobbying, but they are suggestive.

COMBINED RESULTS

Each case study industry suggested a correlation at a several-year forward offset. The obvious concern is that the correlation appears at only very specific offsets for the most part. These findings thus deserve caution. The relatively small data pool for each study is another reason to be cautious. In some cases, with offsets or incomplete data, the sample number from which to calculate correlation is as few as fifteen points. This makes outliers and random noise potentially more influential, which is one reason to encourage additional careful study on this relationship.[50] However, combining the data from all three case studies can help overcome some of the issues with small datasets. The following section displays combined correlations from the data of all three case studies, both with and without the offsets observed to show the greatest relationship individually.

47 John M. Golden & Hannah J. Wiseman, The Fracking Revolution: Shale Gas as a Case Study in Innovation Policy, 64 Emory Law Journal 955, 964-66 (2015).

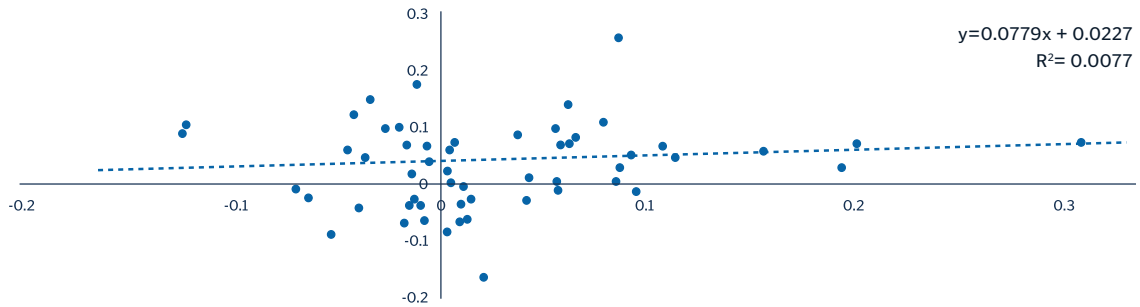
48 Inflation adjusted prices for a barrel of WTI crude were $22.42 compared to roughly $52 in 2017. WTI Crude Oil Prices - 70 Year Historical Chart, https://www.macrotrends.net/1369/crude-oil-price-history-chart.

49 Inflation-adjusted lobbying was $96,737,885 in 1998 and $129,964,656 in 2017.

50 It is especially important in future study to carefully review the data manually to ensure the market definitions for the HHI calculations are similar enough to the market definitions for the lobbying expenditure data.

The first, Figure 18, displays the correlation between 1) the difference between the log of a given year's concentration and the log of the prior year's concentration, and 2) the difference between the log of a given year's lobbying data and the log of the prior year's lobbying data. This format should be familiar at this point. The difference here is that the figure displays that relationship for all three case studies combined.[51] Unsurprisingly, the combined data without offsets does not reflect much in the way of a relationship. The trend line is mostly flat, and the low R^2 value rightly reflects a nearly random scattering of points. Underneath the plot, a more detailed breakdown of the regression shows much the same: there appears to be little correlation between changes in concentration and changes in lobbying in the same year.

FIGURE 18: ALL-DATA LOG-DIFF CONCENTRATION V. LOG-DIFF LOBBYING



REGRESSION STATISTICS	
Multiple R	0.08794972
R Square	0.00773515
Adjusted R Square	-0.0109868
Standard Error	0.06735858
Observations	55

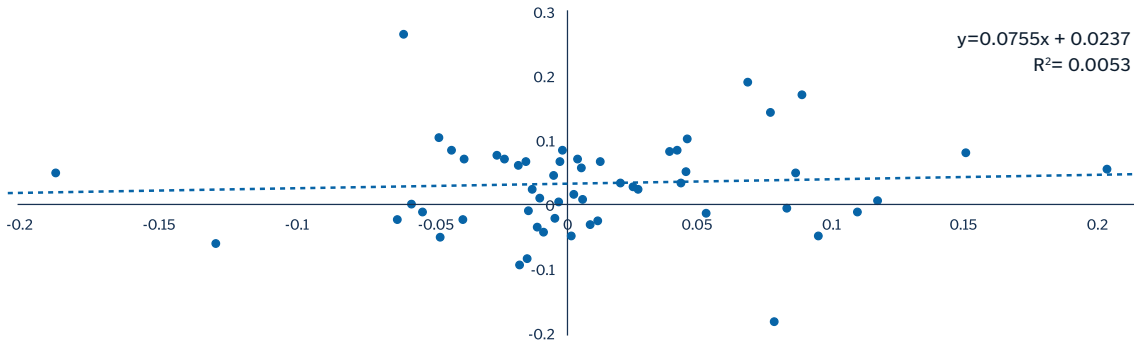
ANOVA					
	df	**SS**	**MS**	**F**	**Significance F**
Regression	1	0.001874576	0.00187458	0.413141623	0.523141623
Residual	53	0.240470478	0.00453718		
Total	54	0.242345054			

	Coefficients	**Standard Error**	**t Stat**	**P-Value**	**Lower 95%**	**Upper 95%**	**Lower 95.0%**	**Upper 95.0%**
Intercept	0.02269839	0.009585925	2.36788701	0.02157078	0.003471457	0.04192532	0.00347146	0.04192532
HHI LogDiff	0.0779106	0.121209871	0.64277441	0.52314162	-0.16520561	0.32102682	-0.1652056	0.32102682

51 This still removes the data for two incomplete data years and, of course, shortens the dataset by another three because taking a difference requires a step forward in the data.

Moving to the offsets that appeared more promising in the individual case studies, Figure 19 displays the data combined at a three-year forward offset, as was found most significant in the pharmaceutical industry case study. The three-year offset yields a similarly non-significant relationship in the combined data, suggesting that specific offset is not significant over the wider dataset. The breakdown of the data follows the same format and conclusions as those from Figure 18.

FIGURE 19: THREE-YEAR OFFSET ALL-DATA LOG-DIFF CONCENTRATION V. LOG-DIFF LOBBYING



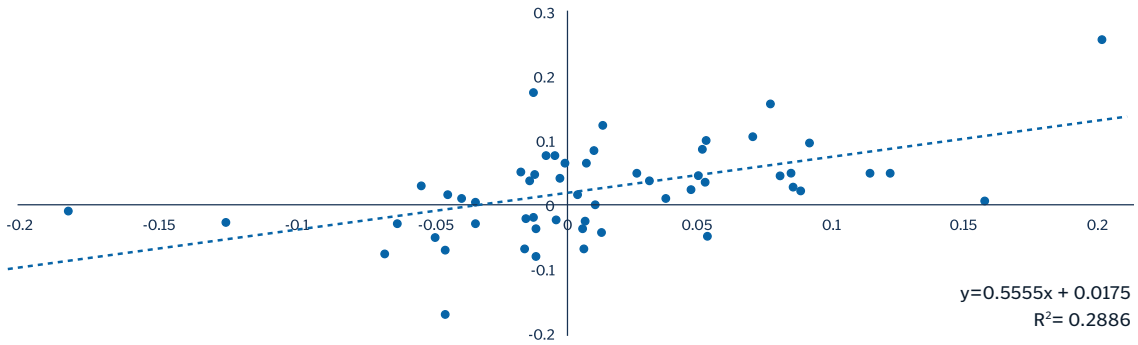
REGRESSION STATISTICS	
Multiple R	0.07273622
R Square	0.00529056
Adjusted R Square	-0.0134775
Standard Error	0.06744151
Observations	55

ANOVA					
	df	**SS**	**MS**	**F**	**Significance F**
Regression	1	0.00128214	0.00128214	0.28189088	0.597682518
Residual	53	0.241062913	0.00454836		
Total	54	0.242345053			

	Coefficients	**Standard Error**	**t Stat**	**P-Value**	**Lower 95%**	**Upper 95%**	**Lower 95.0%**	**Upper 95.0%**
Intercept	0.02369302	0.009277615	2.55378295	0.01356796	0.005084476	0.04230156	0.00508448	0.04230156
HHI LogDiff	0.07548722	0.142178172	0.53093397	0.59768252	-0.20968608	0.36066052	-0.2096861	0.36066052

When the data is combined for all the four-year offsets, as it is in Figure 20, a relationship reemerges. The regression of the combined data appears to still find a positive correlation between concentration in a given year and lobbying four years later. The R^2 value here is moderate, with only about 29% of the variation explained by the relationship. However, in a combined dataset, this suggests the relationship may be more robust than a fluke in the data.

FIGURE 20: FOUR-YEAR OFFSET ALL-DATA LOG-DIFF CONCENTRATION V. LOG-DIFF LOBBYING



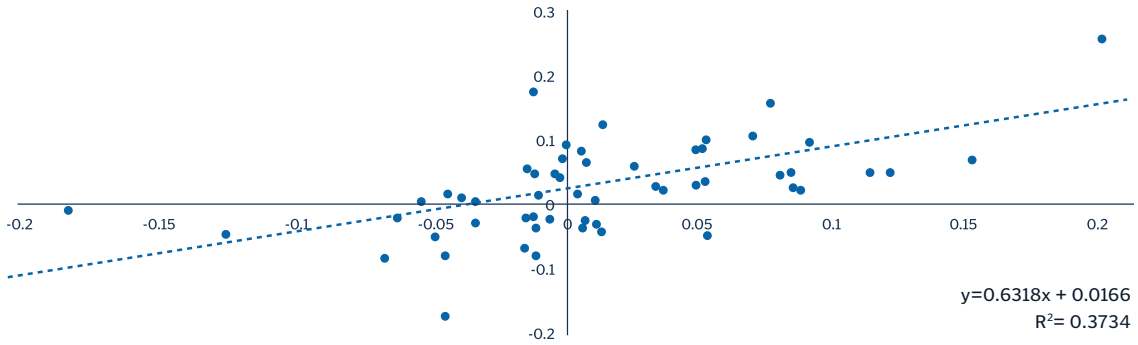
REGRESSION STATISTICS	
Multiple R	0.53725191
R Square	0.28863961
Adjusted R Square	0.27521772
Standard Error	0.05703271
Observations	55

ANOVA					
	df	**SS**	**MS**	**F**	**Significance F**
Regression	1	0.069950383	0.06995038	21.50513285	2.34555E-05
Residual	53	0.17239467	0.00325273		
Total	54	0.242345053			

	Coefficients	**Standard Error**	**t Stat**	**P-Value**	**Lower 95%**	**Upper 95%**	**Lower 95.0%**	**Upper 95.0%**
Intercept	0.01752419	0.007843091	2.23434755	0.029700882	0.001792943	0.03325544	0.00179294	0.03325544
HHI LogDiff	0.55553458	0.119795369	4.6373627	0.000023455	0.315255495	0.79581366	0.31525549	0.79581366

Finally, Figure 21 combines the data for the offsets with the most significant relationship from each case study. Data from the three-year offset in pharmaceuticals, and the four-year offsets in internet companies and oil and gas come together to suggest a slightly stronger relationship. The R^2 value suggests that about 37% of variation is explained by the relationship between concentration and lobbying.

FIGURE 21: MOST SIGNIFICANT OFFSET ALL-DATA LOG-DIFF CONCENTRATION V. LOG-DIFF LOBBYING



REGRESSION STATISTICS	
Multiple R	0.61104071
R Square	0.37337075
Adjusted R Square	0.36154756
Standard Error	0.05352843
Observations	55

ANOVA					
	df	**SS**	**MS**	**F**	**Significance F**
Regression	1	0.090484555	0.09048456	31.57951854	7.2455E-07
Residual	53	0.151860498	0.00286529		
Total	54	0.242345053			

	Coefficients	**Standard Error**	**t Stat**	**P-Value**	**Lower 95%**	**Upper 95%**	**Lower 95.0%**	**Upper 95.0%**
Intercept	0.0165938	0.007359413	2.25477207	0.028303635	0.001832686	0.03135491	0.00183269	0.03135491
HHI LogDiff	0.63176983	0.112423249	5.61956569	7.2455E-07	0.40627735	0.85726231	0.40627735	0.85726231

The more important part of these final combined offsets is that they confirm the relationship's direction and robustness outside the smaller datasets of any single case study. Moreover, the relationship has a relatively substantial positive slope, which suggests again that the changes have a potential positive directional relationship to one another. Figure 21 serves as a potential caveat if this research is extended to a wider scale with more markets: different markets may need different offsets. The process of market definition is of critical importance for any antitrust litigation, rule-making, or research. It is possible that the effect of concentration on lobbying is generally offset by several years, but the specific number of years is market-specific and sensitive to the particular circumstances and structures of that industry. Therefore, a wider study may find that while concentration has significant impact on lobbying in the grocery store market, it is at a two-year lag. But the same impact may be present in the industrial salt market at a five-year lag.

Observing all that these combined and individual case studies have to offer, however, it appears that there is some moderate positive relationship between the concentration of a market and how much lobbying spending it produces in Washington, D.C. Namely, more concentration one year means several years later there will be more lobbying than there otherwise would be. If true, this is a substantial conclusion and may call for a reexamination of some of the doctrine and enforcement methodology that currently govern antitrust.

CONCLUSION

The antitrust laws were a response to rising economic concentration, and the laws' framers recognized that concentrated economic power can poison our democracy. This report has aimed to empirically explore whether this is still true—whether market concentration contributes to a greater capacity and tendency to skew the mechanisms of governance. The data from three major industries suggests that such a relationship may indeed exist—that increases in industry concentration lead to increases in lobbying expenditures and vice versa. It suggests that an industry's concentration is a leading indicator of what an industry's lobbying expenditures will be in the following three or four years. The data does not readily support the opposite claim, that lobbying expenditures lead to or predict subsequent concentration.

One key implication of this report is that the set of harms induced by concentration cannot be understood merely through the consumer welfare lens of analysis and its reliance on price theory, no matter how aggressively one stretches the meaning of consumer welfare. The current use of the consumer welfare standard to govern antitrust allows practitioners in the field to

ignore non-price effects of concentration as unrelated to antitrust. Brandeisians, specifically the structuralists, by contrast argue that concentration causes harms that are well outside the scope of the standard consumer welfare measurements and thus that concentrated power of a certain size should simply be broken up. They insist, as Judge Learned Hand did in 1945, that "there are two possible ways of dealing with [monopolies]: to regulate, or to forbid, them. Since we have no way of regulating them, we forbid them."[52]

This research adds credence to that idea by adding another dimension of harm that cannot be addressed through frameworks oriented around consumer prices. It also casts doubt on pure regulatory solutions that do not reduce concentration, since more lobbying can mitigate regulatory action or even turn regulatory choices into mechanisms to protect entrenched incumbents. If concentration begets political influence, then even a hypothetically economically efficient monopoly offering low consumer prices can still be an undemocratic usurper of political power.

There is one other significant political implication of this research. Stronger antitrust premised on reducing corporate concentration should be understood not just as a mechanism to address market power problems, but as an anti-corruption measure in itself. For instance, the work of the House Subcommittee on Antitrust Commercial and Administrative Law diagnosed the problems of concentration in digital markets, and in doing so, proposed a wide variety of recommendations that would address the concentration crisis in the American economy more generally. The first recommendation in the Digital Markets Report, for instance, is a structural separation approach.[53] Other recommendations include tightening merger standards and strengthening monopolization rules, which would reduce corporate concentration.[54] The subcommittee's recommendations, aside from the worthwhile effects of producing better products and services, would have a salient effect on our political system, forcing firms to focus less on influencing policymakers and more on competing with each other.

Cutting off antitrust and anti-monopoly from richer republican concerns about vast agglomerations of capital is not faithful to the intent of the law's drafters or the way judges and enforcers understood the point of the law until relatively recently.[55] Policymakers' reasons for

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52 Pre-Conference Memorandum from Judge Learned Hand to Judges Augustus N. Hand and Thomas W. Swan, Second Memo on the Question of Monopoly at 8, United States v. Aluminum Co. of Am., 148 F.2d 416 (No. 144) (Feb. 2, 1945).

53 Majority Staff of the Subcomm. on Antitrust, Commercial and Admin Law of the H. Comm. on the Judiciary, 116th Cong., Report on the Investigation of Competition in Digital Markets, at 379–80 (2020), https://judiciary.house.gov/uploadedfiles/competition_in_digital_markets.pdf.

54 Ibid. at 388–89, 392–93.

55 As Judge Learned Hand wrote in 1945 in his decision against the aluminum monopoly Alcoa, "among the purposes of Congress in 1890 was a desire to put an end to great aggregations of capital because of the helplessness of the individual before them." United States v. Aluminum Co. of Am., 148 F.2d 416, 448 (2d Cir. 1945) (citing 21 Cong. Rec., 2457, 2460, 2598 (Statement of Sen. Sherman: "If the concerted powers of this combination are intrusted to a single man, it is a kingly prerogative, inconsistent with our form of government, and should be subject to the strong resistance of the State and national authorities. ... The popular mind is agitated with problems that may disturb social order, and among them all none is more threatening than the inequality of condition, of wealth, and opportunity that has grown within a single generation out of the concentration of capital into vast combinations to control production and trade and to break down competition. These combinations already defy or control powerful transportation corporations and reach State authorities. They reach out their Briarean arms to every part of our country. They are imported from abroad. Congress alone can deal with them, and if we are unwilling or unable there will soon be a trust for every production and a master to fix the price for every necessity of life.")).

constraining trusts were myriad, and political influence was undeniably one of them.[56] This paper is a call back to this argument and reveals that concentration likely drives lobbying. Knowing this relationship, enforcers, lawmakers, and judges should reconsider their adherence to the consumer welfare standard, which narrowly, artificially, and ahistorically ignores the harm to democracy the antitrust laws were intended to address—a harm to democracy that this report strongly suggests is real.

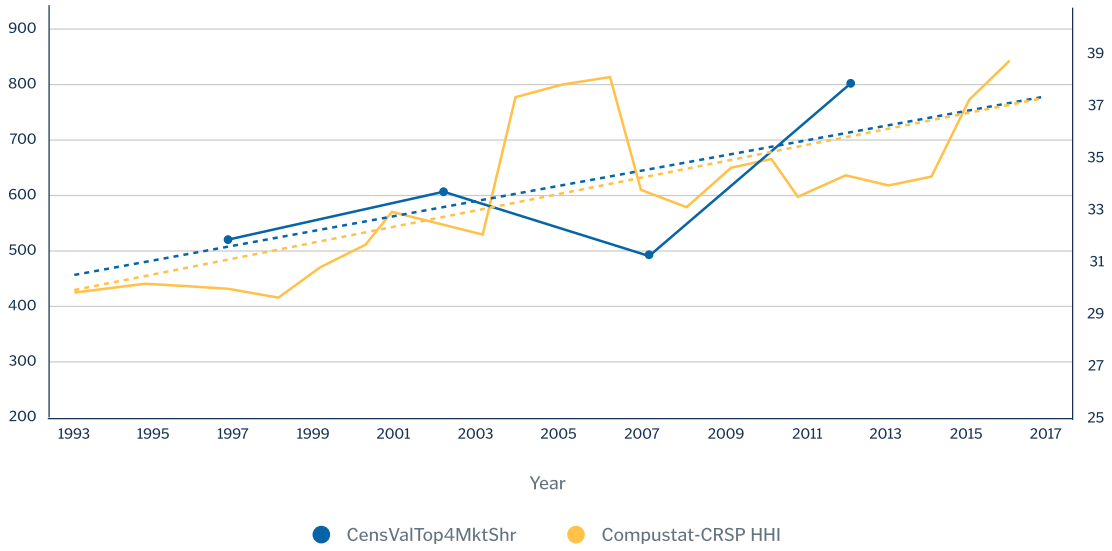
Corporate concentration and antidemocratic political influence go hand in hand. The policy implication is a recognition that the consumer welfare standard simply does not capture the full suite of harms of concentration and cannot provide a full solution without structuralist regulations. One important political implication is that those who want to address political corruption should see in structuralist antitrust doctrine a helpful toolkit. In addition, it is hoped that this study will spur additional research into the relationship between concentration and political power.

This article is a starting point but hopefully also a reminder that antitrust is equipped and designed to grapple with the political ramifications of economic concentration. Those crafting and enforcing the doctrine should feel empowered to step into the shoes they were meant to fill.

56 As Senator John Sherman put it in 1890, "If we would not submit to an emperor, we should not submit to an autocrat of trade." 21 Cong. Rec. 2457 (1890) (statement of Sen. Sherman).

APPENDIX

FIGURE A: PHARMACEUTICAL COMPUSTAT-CRSP HHI V. CENSUS TOP 4 FIRM MARKETSHARE



AMERICAN ECONOMIC LIBERTIES PROJECT

The American Economic Liberties Project is a new, independent organization fighting against concentrated corporate power to realize economic liberty for all, in support of a secure, inclusive democratic society.

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