Investing in influence: Investors, portfolio firms, and political giving

Marianne Bertrand, Matilde Bombardini,
Raymond Fisman, Francesco Trebbi, and Eyub Yegen*

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Abstract

We examine how the rise of institutional ownership has influenced firms' political activities. We find that after the acquisition of a large stake, a firm's political action committee (PAC) giving mirrors more closely that of the acquiring investor. Consistent with a causal interpretation, this pattern is also observed for acquisitions driven by new index inclusions. The pattern is stronger when firms' management faces a shareholder proposal vote and may thus need the investor's support. We further show that firms' giving shifts away from business-relevant politicians and is also strongly aligned with the individual campaign donations of the institutional investors' employees. These results, together with the finding that the effects are larger for more "partisan" as well as privately owned investors, suggest that influence is driven by institutional investors' own political views, rather than a profit-maximizing strategy.

*Bertrand: University of Chicago Booth School of Business, NBER and CEPR; Bombardini: UC Berkeley Haas School of Business, NBER and CEPR; Fisman: Boston University and NBER; Trebbi: UC Berkeley Haas School of Business, NBER and CEPR; Yegen: Hong Kong University of Science and Technology. We would like to thank participants at the Stanford - Hoover Institute Inaugural Conference of the Working Group on Corporate Governance, NBER Conference on Economics and Politics of Mega-Firms, CEPR Conference on the Politics of Regulation and Central Banking, CEPR Conference on Ownership, Governance, Management and Firm Performance, IOG-BFI Spring Conference, Strategy and the Business Environment Conference, EFA Annual Meetings, MFA Annual Meetings, FMA Annual Meetings, CICF Annual Meetings, GRASFI Conference, Global Corporate Governance Colloquium at Yale, Bank of Finland Workshop on Finance and Politics, Workshop on Interest Groups, and seminar participants at Harvard Business School, Harvard Law School, Stanford GSB, Chicago Booth, Chicago Harris, UC Berkeley Haas, UC Berkeley Political Science, UCSD, Virginia, Washington Foster, Georgetown, George Mason, Florida, Tsinghua, Sao Paulo School of Economics, Santa Clara, Alberta, Quebec, Toronto, HKUST, the Federal Reserve of Atlanta and other institutions for comments.

1 Introduction

Over the past seventy years, institutional investors' ownership of publicly traded U.S. companies has increased dramatically, from just 6 percent in 1950 to 65 percent in 2017 (Bebchuk and Hirst, 2019). This increase, combined with economies of scale and other structural forces in the financial services industry, has put a large share of the U.S. economy in the hands of a relatively small number of asset management companies. The "Big Three" of BlackRock, Vanguard, and State Street Global Investors, for example, held more than 20 percent of S&P 500 shares in 2017 as compared to 5 percent in 1998 (Bebchuk and Hirst, 2019).

This sea change in the ownership of U.S. corporations has given rise to a discussion among academics and policymakers over its consequences. In this paper, our focus is on how this concentration in ownership may in turn concentrate political influence through asset managers' control over portfolio companies. This is a departure from the current debate, much of which involves a disagreement as to how actively institutional investors will use their control of portfolio firms to fulfill their fiduciary duty to their clients, i.e., those individuals and organizations that invest through them. On one hand of this debate, some argue that the replacement of small dispersed owners by large institutional investors may reduce the standard agency problem of the Berle and Means (1932) corporation. This may improve welfare if active, concentrated shareholders primarily act as effective monitors of management at the level of the portfolio firm. This shift may also, as some in the common ownership literature have argued, reduce welfare if control is used to maximize profits across all (possibly competing) firms in concentrated shareholders' portfolios (Azar and Vives, 2021; Anton et al., 2022). On the other hand, others have observed that institutional investors – and especially those managing index funds or "closet indexer" active funds – lack the financial incentives to be active monitors of management, given their fee structures and business model (Bebchuk et al., 2017). Proponents of this view often highlight how few resources even the largest institutional investors spend on stewardship activities for the companies in their portfolios.

Yet, even without actively engaging in efforts to influence portfolio firms' management decisions, these passive institutional investors may still hold sway. Famously, after BlackRock CEO Larry Fink urged chief executives in 2018 to "make a positive contribution to society," the financial press observed that BlackRock could apply pressure even via its index fund holdings, as those gave BlackRock (and Fink as its CEO) enough ownership to affect votes on board appointments or other agenda items of relevance to top managers.[1]

[1]The letter may be found here: https://www.blackrock.com/corporate/investor-relations/larry-fink-ceo-letter (last accessed June 10, 2024). In his letter, Fink wrote explicitly that BlackRock would not necessarily seek change via divestment. See, e.g., "BlackRock C.E.O. Larry Fink: Climate Crisis Will Reshape Finance," Andrew Ross Sorkin, *New York Times,* January 14, 2020 for a discussion of how BlackRock would use its influence via passive index funds to influence corporations' agendas.

While Fink framed his comments in terms of long-term shareholder maximization, the subsequent discussion raises the concern that asset managers – who effectively control the votes of the funds they manage – have the potential to derive benefits from their position of control in ways that serve their own interests rather than those of their clients. Indeed, just as the CEO of a widely-held corporation may extract private benefits from their control of the corporation despite a lack of ownership, the managers and owners of financial services firms may be able to extract benefits from their control of much of the U.S. stock market despite coming to this control position "as a side effect, largely unintended or even known to their own economic principals (i.e., index investors)" (Coates, 2018).

Benefits for managers and owners of asset management companies can come in many forms, some more mundane than others. For example, CEOs may feel compelled to "wine and dine" the senior management of their large institutional investors, especially when corporate leaders are hoping for investors' support in a vote on a contentious shareholder proposal or with a new director appointment. Benefits could also take the form of preferential access to jobs for relatives at portfolio firms.

The type of benefit we focus on in this paper is, we argue, of greater significance: political influence. Just as the common ownership literature has raised questions related to the concentration of economic power with the rise of institutional investing, we ask whether the rise in institutional ownership should also raise concerns with respect to the concentration of political power.

To examine the question of whether institutional investors impact corporate political strategy, we study whether portfolio firms' political giving is affected by the political preferences of their institutional investors. We do so by examining changes in portfolio companies' political action committee (PAC) spending around block purchases in those companies by institutional investors. More precisely, we examine how the relationship between the PAC giving of an investor and the PAC giving of a portfolio firm changes when the investor first acquires a large stake ($> 1\%$) in that firm.

In a first set of results, we find that the likelihood that an investor and a firm both give to a specific politician is substantially higher after the investor first acquires a large stake in that firm. In our preferred specification, which includes a saturated set of fixed effects, we find that the probability that a firm's PAC donates to a politician supported by an investor's PAC increases by 31 percent after an acquisition. Similarly, using a cosine similarity measure at the investor-firm pair, we find an increase in the giving similarity of firms and investors subsequent to the acquisition event.

Money in politics research is typically plagued by identification problems due to omitted confounders that may drive political giving.[2] In our setting, acquisitions could be driven by unobserved

[2]The determinants of corporate political giving have been the subject of substantial research. Early exam-

factors that are correlated with a convergence in the political interests of the firm and the acquiring investor. Also, it is possible that the results described above stem from active institutional investors trying to attract clients with particular political leanings by donating to client-favored politicians, and also by pressuring portfolio companies to donate to these client-favored legislators. For example, Engine No.1, a social-impact-focused fund that attracted attention for its campaign to replace Exxon Mobil board members in 2021, may attract environmentally conscious clients by donating to "green" politicians themselves, and also pressuring acquired companies to do the same. In this case, a conclusion of concentration of political influence in the hands of asset managers would be unwarranted, as they are simply acting on the political preferences of their (dispersed) principals.

To address these challenges, we turn to a subset of investors and acquisition events that are less affected by such confounds. Specifically, we restrict our sample of asset management companies to passive investors and, following Boller and Morton (2020), focus on a subsample of acquisitions due to stock index inclusions (i.e., a firm being added for the first time to, say, the S&P 500 or the Russell 2000 Index). The increased correlation between firm PAC and investor PAC giving is also observed for block purchases that result from such index inclusions among index investors. We further argue that index funds are, with some important exceptions, least apt to attract investors based on principles or ideology – the fund's objective is simply to track the returns of a market index, such as the S&P 500.[3] We thus suggest that particularly in this subsample, the post-acquisition increase in co-movement of fund-firm PAC giving is unlikely to reflect the preferences of fund investors, who are the ultimate shareholders.[4]

We provide more direct evidence of investors changing the giving behavior of the portfolio firms they take a financial stake in, rather than portfolio firms' preferences influencing investors' political giving. To do this, we construct cosine similarity measures for each entity (firm or investor) between adjacent election cycles around the acquisition. Intuitively, these persistence

ples include Masters and Keim (1985), Burris (1987), and Snyder Jr (1990), which look at the determinants of PAC presence and size among Fortune-ranked corporations during 1981-1982, 1976-1980, and 1980-86 respectively, andStratmann (2005) which provides an early overview. Bombardini (2008) focuses on the productivity of political giving and Bombardini and Trebbi (2012) on the interaction of giving and electoral mobilization. Some main takeaways from this earlier work are that larger companies and those in sectors more heavily involved with government (either via contracting or regulation) are more likely to have PACs. Similar patterns are observed in lobbying decisions; see Tripathi et al. (2002) for early work, and more recent investigations by Kerr et al. (2014) and Kang (2016). See Bombardini and Trebbi (2020) and de Figueiredo and Richter (2014) for reviews.

[3]In fact, index funds can be *forced* to maintain ownership in stocks that investors might otherwise wish to divest. For example, shortly after the Larry Fink announcement described above, BlackRock sold off stakes in gun manufacturers in its more actively managed funds, but was forced to keep them in some passive (index) funds, because gunmakers were in the particular indices they tracked. See, e.g., "BlackRock Ends Up in an Awkward Place on Guns," Matt Levine, *Bloomberg*, April 8, 2018.

[4]The most important exceptions are funds that track Environmental, Social, and Governance (ESG) indices, which primarily screen out firms based on their societal impact. Our index fund findings are robust to excluding ESG funds.

measures capture the extent to which the profile of political giving of a firm or investor across congressional districts experiences unusually large (or small) shifts between the two election cycles around a block purchase. If a firm adjusts its giving to investor preferences, we expect a relatively larger drop in similarity for the firm around the acquisition date. If instead the investor adjusts its giving to that of the firm, we expect the opposite. We show that around the block purchase election cycle, firms experience a relative drop in their across-period giving similarity, as compared to that of investors. These results lead us to interpret our main results as reflecting the adjustment of firm giving to investor preferences, rather than the converse.

We then turn to mechanisms, exploring both *why* and *how* investor political influence takes place. Our first set of analyses are inspired by the qualitative discussion provided by Coates (2023) as well as the survey evidence in McCahery et al. (2016). Both papers argue that the incentives of executives to cater to the preferences – political or otherwise – of investors will be greater when management faces a contentious proxy vote. It is at these times that management will be particularly motivated to garner support from large shareholders (and their many votes). To test this idea, we obtained all shareholder proposals for the firms in our sample and show that the increased post-acquisition co-movement in investor and firm PAC giving is stronger when management faces a vote on shareholder proposal.[5]

Turning to the motivations of investors, we distinguish between two main possibilities: personal political preferences and profit motives. We present three sets of results that collectively suggest that political preferences may be an important motivation. Specifically, we show that firms' political giving shifts away from strategically important politicians as institutional investors acquire a larger ownership share, which suggests a substitution toward less profit-oriented political activities. Also, we show that the co-movement between investor and firm PAC giving is higher for more 'partisan' institutional investors, which we take as an indication that their political activities are governed more by ideological than strategic concerns. Finally, we report an increase in the co-movement of institutional investor's individual employee giving and portfolio firm PAC giving after an acquisition. We again interpret this finding as suggesting that personal preferences matter: while employee and PAC giving are correlated, the former is plausibly a stronger reflection of individual employees and managers' own political preferences.

We then turn to consider how political preferences are conveyed by the institutional investor to portfolio firms. There is no systematic data on what Coates (2023) describes as "engagement" opportunities, i.e., when investors may convey directly to company representatives any concerns they have about how the company is run. However, we can observe institutional investors' em-

[5]It is possible that support from large shareholders may even help to preempt a proxy vote. So, as an alternative measure of management insecurity, we also look at whether the firm had at least one controversial ESG incident during an election cycle. We find qualitatively similar results.

ployees gaining a seat on the board of portfolio companies. Consistent with board representation offering an institutional investor a more active voice, we show that the correlation in political giving increases even more sharply after the investor gets a seat on the board.

Overall, our results suggest that the political preferences of a limited number of asset management companies are amplified as they gain control in U.S. corporations on behalf of their dispersed (and most likely – at least in the case of index funds – oblivious) clients. Although we have no direct evidence regarding the welfare implications of these patterns, it is unlikely that the amplification of the political preferences of a few individuals has ample societal benefits.

Related literature Our work sits at the intersection of research on money and influence in politics, and research on institutional ownership. While there is a vast literature in each of these separate areas, to our knowledge, we believe no prior work has quantitatively looked at the link between the two. Indeed, despite their considerable wealth and potential influence, we know of no prior work that examines that political activities of institutional investors.

More generally, our paper contributes to a larger literature, active in both economics and political science, that studies the determinants and consequences of corporate political influence on government policy, as well as a broader discussion on the role of money in politics in the U.S. and beyond (e.g., Drutman, 2015; Walker and Rea, 2014). Corporate influence activities have been documented across a range of channels (e.g., Bertrand et al., 2020; Bombardini and Trebbi, 2011), in both legislative and regulatory domains (Bertrand et al., 2021), and at various levels of government (Thieme, 2020). Prior work – including those cited above – has generally taken firms' influence-seeking activities as guided by profit maximization – an extension of firms' business interests to non-market strategies. This profit motive has been largely assumed in recent legal doctrine.[6] The benchmark of corporate political "speech" driven solely by profit may, however, be an overly simplified view of how corporations are governed. Recent research suggests instead that a firm's political behavior and orientation may be the result of a richer interaction amongst the interests and influence of various stakeholders – including top managers, large shareholders, and board members – that hold diverse political views. While some earlier work documents some degree of alignment amongst these various parties – in particular the overlap between executives' political giving and their firms' PAC giving (Teso, 2022; Richter and Werner, 2017), others have highlighted the relatively partisan nature of CEO political contributions (e.g., Bonica, 2016). The partisanship of executives and employees has, in turn, led to an increased polarization of political orientation as a result of sorting across firms (Fos et al., 2022; Colonnelli et al., 2022). [7]

[6]For example, in the 2010 Supreme Court's landmark *Citizens United v. FEC* decision, Justice Anthony Kennedy wrote that, "shareholders can determine whether their corporation's political speech advances the corporation's interest in making profits...and react to the speech of corporate entities in a proper way."

[7]Tahoun et al. (2023) similarly find executive sorting, and further show that politically opposed executives that

These shifts in firms' political orientations have real consequences for firm-level decisions (e.g., international investment, as in Kempf et al., 2023) and ultimately for firm value (Fos et al., 2022). These recent contributions highlight the complex interplay amongst firms' political objectives and executives' political orientations. In this paper, we further emphasize the need to consider firm ownership as playing a key role in determining businesses' political activities. This is especially true when, as emphasized by Bolton et al. (2020) and as we document here, institutional investors vary substantially in their ideological position.

The literature on influence also includes many attempts at estimating the returns to PAC donations. Findings are mixed (see, e.g., Fowler et al., 2020, for a discussion) perhaps owing both to the empirical challenges involved, and also, as we suggest in this paper, the range of objectives that might be served by corporate political giving.

Finally, we contribute to the literature on the role of institutional investors in determining firm outcomes (see, e.g., Gompers and Metrick, 2001; Gabaix et al., 2006; Aghion et al., 2013; McCahery et al., 2016; Bebchuk et al., 2017; Dyck et al., 2019; López and Vives, 2019) by documenting that institutional investors have an influence on portfolio firms' political decisions. This topic has taken on particular relevance, given concerns over the consequences – anti-competitive and otherwise – of common ownership of firms by a given institutional investor (Posner et al., 2017; Schmalz, 2018). Much of the debate in the common ownership literature centers on the extent to which asset managers have strong enough financial incentives to use their control to engineer some coordination between competing portfolio firms, even when such coordination would be required if portfolio managers took their fiduciary duty to their clients seriously (Backus et al., 2019).

Recent work has shown that some institutional investors are in fact active in corporate governance. However, much of this research focuses on so-called activist hedge funds (e.g., Brav et al., 2018). Our findings suggest that even index-based investors influence decisions at portfolio firms, a point that some recent work has cast doubts on (Heath et al., 2022), and one that has particular importance in a literature in which the question of whether greater passive ownership has any effect on, e.g., managerial power, remains unsettled (Brav et al., 2022). While we focus on the political margin of firm decisions, our findings confirm the *potential* for asset managers to exercise influence – derived from their ever-larger holdings – more generally (though as noted by Corum et al., 2021, this may depend on the broader composition of ownership, a point we return to below).

Also (and potentially at odds with prior literature), our findings suggest that institutional investors' may not be aligned with their fiduciary duty to their clients. Prior work has tended to emphasize the role that institutional investors may play in disciplining management for the benefit of portfolio firm profitability (Lewellen and Lewellen, 2022), rather than the benefits of

are hired by the firm do so with higher pay and steeper incentive contracts.

fund managers. To the extent that scholars have considered the use of control to serve the fund, the focus has been on the anti-competitive effects of common ownership, which remains a much-debated topic (Azar and Vives, 2021; Backus et al., 2019; Boller and Morton, 2020). By contrast, our findings suggest that these investors may leverage the control they inherit as agents to their clients to seek their own benefits. While the focus of the debate that has emerged as a result of increasing institutional ownership is around the concentration of economic power, our paper shows that growing institutional ownership may also lead to the concentration of political power in the hands of a few asset management firms.

The paper is organized as follows. Section 2 describes the data, sample construction and the main variables used in the analysis. Section 3 presents our main empirical results linking political donations by investors and their portfolio firms. Section 4 investigates the mechanisms that underlie this relationship. We conclude in Section 5.

2 Data and Variables Construction

2.1 Data Sources and Sample Construction

Our starting sample of institutional investors is the set of all 13-F investors, i.e., those that manage at least $100 million in assets and are thus required by the SEC to disclose their portfolio holdings at the end of each quarter (via 13-F reports). Our starting sample of portfolio firms includes all public companies that appear at least once in one of the 13-F investors' portfolios over our sample period and that can be matched to the Center for Research in Security Prices (CRSP), a provider of detailed financial data on publicly traded companies. To generate the set of firms associated with our investor sample, we use the Thomson-Reuters' dataset on investors' portfolios, which contains, at the quarterly level, the number of shares held by institutional investors in their portfolio firms, the portfolio firms' CRSP stock prices, and the portfolio firms' total outstanding shares held.[8] Some data are missing from Thomson-Reuters. To fill these gaps for the post-2012 period, we adopt the code provided by Wharton Research Data Services (WRDS) to construct the ownership levels in the year 2012 and later.[9] For the pre-2012 period, we manually obtain the missing holdings data directly from SEC Edgar. We follow the approach of Lewellen and Lewellen (2022) and aggregate the holdings data to the level of the fund family (e.g., we aggregate all

[8]The Institutional (13f) Holdings - S34 dataset was downloaded from https://wrds-www.wharton.upenn.edu/pages/get-data/thomson-reuters/institutional-13f-holdings-s34, via WRDS subscription

[9]The code provided by WRDS may be accessed via `https://wrds-www.wharton.upenn.edu/documents/533/Research_Note_-Thomson_S34_Data_Issues.pdf` and the data can be found at `https://wrds-www.wharton.upenn.edu/pages/get-data/wrds-sec-analytics-suite/` via WRDS subscription. For further details, please see Yegen (2019) for a detailed discussion of the missing ownership data issue.

BlackRock funds) since these funds are reported in the same parent's 13-D and 13-G files. After this procedure, we obtain a dataset with 9,639 13-F investors and 28,284 portfolio firms.[10]

We link both investors and portfolio firms to their political donations. To do so, we match by name each organization (i.e., investor or firm) to PACs in the Federal Election Commission (FEC) records, using a combination of fuzzy matching algorithms and manual matching.[11] We identify 574 investors and 2,456 portfolio firms with a PAC.

Having created a link from firms and investors to PAC IDs, it is then straightforward to further link both firms and investors to their campaign contributions to specific candidates in each two-year election cycle.[12] Finally, firm and investor contributions to candidates are linked to constituencies using the MIT Election Data files, which we further use to limit our donations data to winners in House of Representatives races, as in Bertrand et al. (2020).[13]

Since our main specification entails observations at the investor-firm-congressional district-election cycle level, we face the problem of an excessively large data set.[14] Restricting attention to the set of politically active firms (2,456) is not sufficient to obtain a tractable size (9,639×2,456×19×435=196 billion), so we consider only firm-investor pairs that become linked at some point over the sample period by a large acquisition event.[15] For this sample, whenever we do not observe PAC giving, either by a firm or an investor, we set it equal to zero, since the Federal Election Commission data reports the universe of federal campaign donations, so if the donation is not in the dataset, this means it is (legally) zero.

Our analysis spans the period 1980 to 2018. Since the PAC data are at the (two-year) election cycle level, we identify large acquisition events at the same frequency (19 election cycles). In particular, in the Thomson-Reuters' data, we average the fraction of outstanding shares of portfolio firm f held by investor i in a given quarter over the 8 quarters in each election cycle t. We pair a given investor in the Cartesian product to the set of portfolio firms that: (i) were absent from the investor's portfolio at the beginning of the sample period; and (ii) in which the investor acquired at least one percent of outstanding shares in an election cycle.[16]

[10]These correspond to 67,342 unique historical CUSIP codes because a firm can change CUSIP over time.

[11]In particular, after removing the sample of Fortune 500 and S&P 500 firms for which PAC linkages had already been performed by Bertrand et al. (2014) and Bertrand et al. (2020), we standardize the names of the remaining organizations and PACs by removing common legal abbreviations, such as Inc. and Incorporation. We then use the Levenshtein distance function in the fuzzy matching procedure to link organizations to PACs, keeping only matches with at least a 70 percent likeliness score, and subsequently manually check all these fuzzy matches. For the set of organizations that remain unmatched at that stage, we manually search the FEC records for any remaining relevant PACs.

[12]For years prior to the creation of a PAC (i.e. the first year we observe positive PAC giving) we assign zero campaign contributions to the firm or investor.

[13]The MIT Election Data are available at https://electionlab.mit.edu/data, last accessed June 11, 2024.

[14]The Cartesian product 9,639×28284×19×435 would be 2.13 trillion observations.

[15]We keep investors without a PAC in the sample in order to detect whether politically inactive investors can dissuade portfolio firms from engaging in political giving.

[16]An investor-firm pair is included in the Cartesian product even if there are subsequent acquisitions and/or

We use the BoardEx database to measure institutional investor representation on a portfolio firm's board in each election cycle. BoardEx provides a company affiliation for each board member, and often (but not always) includes the organization's CIK number, the ten digit identifier assigned to firms by the SEC. We hand-collect missing CIK numbers by manually searching the names of the other entities that appear in BoardEx on SEC Edgar. Following this step, we link CIK numbers to Thomson-Reuters investor IDs following Christoffersen et al. (2015).[17]

We follow Appel et al. (2016, 2019) and Bushee (2001) to determine whether a given institutional investor is a passive investor (a quasi-indexer in Bushee's classification), using the permanent investor classification data.[18] To identify hedge fund activist investors, we rely on Brav et al. (2008), who define activists based on the reasons provided for acquisitions in 13D filings with the SEC, and in particular whether the fund intends to force changes or seek control at target companies.[19]

Finally, we use data from CRSP, Thomson-Reuters, and ETF Global to track index inclusions and the exact timing of these inclusions. We include all US domestic equity indices that are available via CRSP and ETF Global.[20]

2.2 Variable definitions

In our baseline analysis, we are interested in assessing changes in the correlation between the PACs of an investor and a portfolio firm following a large acquisition of shares by the investor in that portfolio firm. $Log\,Firm\,PAC_{f,t,c}$ is the logarithmic transformation of one plus total PAC giving by firm f to the politician representing congressional district c in election cycle t. $Log\,Investor\,PAC_{i,t,c}$ is similarly defined for investor i. We alternatively create dummy variables to indicate any PAC giving to a politician by a portfolio firm or investor in a given election cycle.

We define an indicator variable $\mathbb{1}(Post_{fit})$ which equals 1 for all election cycles that follow the acquisition of at least one percent of portfolio firm f by investor i in a single 13-F reporting quarter, as long as investor i has an ownership stake in firm f, and zero before the acquisition; when the investor fully divests from the portfolio firm, the investor-firm pair exits the sample.[21]

subsequent divestments.

[17] Boardex data may be downloaded from `https://wrds-www.wharton.upenn.edu/pages/get-data/center-research-security-prices-crsp/` with a WRDS subscription.

[18] Available at https://accounting-faculty.wharton.upenn.edu/bushee/, last accessed June 11, 2024.

[19] See Brav et al. (2008) for additional details.

[20] CRSP data may be downloaded from `https://wrds-www.wharton.upenn.edu/pages/get-data/center-research-security-prices-crsp/` and the ETF Global data may be downloaded from `https://wrds-www.wharton.upenn.edu/pages/get-data/center-research-security-prices-crsp/`; both require a subscription to CRSP and ETF Global on WRDS.

[21] For the divestment analysis in Section 3.2, we apply an analogous definition. $\mathbb{1}(Post_{fit})$ is equal to 1 for all cycles following the complete divestment of a stake of at least one percent in a single 13-F reporting quarter by investor i in firm f and zero for the earlier cycles during which the investor had any share of ownership; the

To offer a clearer sense of how the variable $\mathbb{1}(Post_{fit})$ is constructed, we provide a visualization of it for one specific institutional investor; see Appendix Figures A.1 and A.2, and Appendix A.1 for an accompanying explanation.

As an alternative approach to capturing the shifting patterns in PAC giving around acquisitions, we also define a set of cosine similarity measures that we track around large acquisitions. We define such measures for each firm (or investor) between adjacent election cycles, to capture the extent to which PAC giving remains relatively stable across time, and also for firm-investor pair at each point in time, which provides a cycle-by-cycle measure of similarity in PAC giving between investors and portfolio firms.

Focusing first on cosine similarity for a single organization j across election cycles, we construct the (non-zero) vectors of PAC giving, $x_{j,t}$, which capture PAC giving to all politicians during cycle t by organization j. We calculate the Euclidean dot product between the two vectors $x_{j,t}$ and $x_{j,t+1}$ to measure the similarity in PAC giving across election cycles:

$$Cos(x_{j,t}, x_{j,t+1}) = \frac{x_{j,t} \cdot x_{j,t+1}}{\|x_{j,t}\|\|x_{j,t+1}\|} = \frac{\sum_{c=1}^{n} x_{j,t,c} \times x_{j,t+1,c}}{\sqrt{\sum_{p=1}^{n} x_{j,t,c}^2} \times \sqrt{\sum_{c=1}^{n} x_{j,t+1,c}^2}}$$

where $\|x_{j,t}\|$ is defined as the Euclidean length (i.e., magnitude) of the non-zero vector $x_{j,t}$, $x_{j,t,c}$ is PAC giving by j during cycle t to the politician representing congressional district c (which could have a value of zero), and $n = 435$ is the set of congressional districts in a cycle.

The cosine similarity score, $Cos(x_{j,t}, x_{j,t+1})$, takes a value between zero and one, with a value of one indicating an identical pattern of giving across election cycles. Note that since the Euclidean dot product between $x_{j,t}$ and $x_{j,t+1}$ requires that both vectors be non-zero, whenever the organization j gives no PAC money to any politician during either election cycle t or election cycle $t+1$, $Cos(x_{j,t}, x_{j,t+1})$ is undefined.

We construct the investor-firm similarity in PAC giving in a given election cycle $Cos(x_{i,t}, x_{f,t})$ in a similar fashion.

In the analysis below, we will be interested in attributing any convergence in giving behavior over time to shifts in giving by the investor versus shifts in giving by the firm. To do so, we will use $Cos(x_{ft}, x_{f,t+1}) - Cos(x_{i,t}, x_{i,t+1})$, the difference between the firm's and investor's changes in cosine similarity between election cycles. A negative sign (i.e., $Cos(x_{ft}, x_{f,t+1}) < Cos(x_{i,t}, x_{i,t+1})$ indicates the portfolio firm changes its political giving more than the investor.

To account for the fact that investors and firms may have a different baseline level of serial correlation in their giving, we take another layer of differences, i.e. $[Cos(x_{ft}, x_{f,t+1}) -$

investor-firm pair enters the sample when the investor first acquires any ownership stake in the firm.

$Cos(x_{f,t-1}, x_{ft})] - [Cos(x_{it}, x_{i,t+1}) - Cos(x_{i,t-1}, x_{i,t})]$. We also look at longer two-period differences (i.e., $[Cos(x_{ft}, x_{f,t+2}) - Cos(x_{f,t-2}, x_{ft})] - [Cos(x_{it}, x_{i,t+2}) - Cos(x_{i,t-2}, x_{i,t})]$), to further evaluate the robustness of our findings.

2.3 Summary statistics

In interpreting the figures that follow, it is important to note that, although PAC giving is quantitatively modest, it is seen as a marker of broader political activity. As shown for example in Bertrand et al. (2020), PAC giving is only one of many potential forms of political influence activities among corporations, and these activities tend to be positively correlated.[22] Of the 9,639 investors in the 13F data, 6.3 percent have a PAC; 10.4 percent of passive investors have PAC, compared to 4.2 percent of all other investors and 3 percent of activist hedge funds. There are 2,456 portfolio firms that are included in our sample with a PAC and for whom we can see a first large acquisition event.

We present summary statistics in Table A.1. Panel A reports PAC activity among firms and investors with PAC, at the election cycle level. The average portfolio firm with a PAC in our dataset makes campaign contributions to 39 politicians in a given election cycle. The average PAC contribution per politician (including those receiving donations of zero) is 195 dollars. The average giving per politician, conditional on non-zero giving, is 2,165 dollars. The most active firms (e.g., at the 90th percentile) reach the Federal Election Commission mandated maximum per politician per cycle of 5,000 dollars (the limit is 5,600 dollars toward the end of the sample) and contribute to 99 legislators.[23]

The average institutional investor with a PAC in our dataset makes donations to 35 politicians in a given election cycle, with the average per-politician giving of 174 dollars. Conditional on giving to a politician in an election cycle, the average contribution is 2,124 dollars. Again, there is wide variation across investors. The 90th percentile investor makes campaign contributions to 90 different politicians. In terms of the distribution of political giving across investor types, there are only modest differences: the average passive investor gives to 31 politicians in an average election cycle, compared to 41 for non-passive investors, and 39 for activist hedge funds. The most politically active institutional investor is the Bell Atlantic Asset Management Company that gives to 175 congressional districts in an average election cycle.

[22] For example, in Appendix A.4, we show that there is convergence in lobbying behavior post-acquisition that is analogous to the convergence we document for PAC donations.

[23] For firms, selection into our sample is based on having a corporate PAC, so that it is natural to consider whether and how the companies we study differ from those without PACs. This comparison has been made in prior research, which finds – unsurprisingly – that larger companies and those in sectors more heavily involved with government (either via contracting or regulation) are more likely to have PACs (Masters and Keim, 1985; Burris, 1987). In our own data, we find that analogous patterns hold for predicting whether investors have a PAC – size is a very strong predictor of the existence of a PAC, as is an investor's "sector".

Panel B reports on the partisanship of PAC giving for both investors and portfolio firms. To obtain party-level PAC giving, we sum across PAC donations to politicians of the Republican Party and divide it by the sum of giving to Democrats and Republicans during a given cycle. In line with previous work (see, e.g., Bonica, 2016), we find that firms are relatively balanced in their giving on average, with 47.4 percent going to Republicans. Half of the firms in the sample give between 21.1 and 77.2 percent to Republicans; this is less partisan than executives' individual giving as documented by Bonica (2016). Some firms are very partisan, however: the 10th and 90th percentile firms in our dataset gives all of their donations to Democrats and Republicans respectively.

Investors, by contrast, show a slight preference for Republicans on average (52.6 percent of giving). Again, there is wide variation (although not as wide as for firms): the 10th and 90th percentile of giving to Republicans is 12.5 percent and 94.5 percent, respectively. There is a notable difference between private- and publicly-owned investors. Private investors at the 10th and 90th percentiles contribute 6.3 and 100 percent to Republicans respectively, while the corresponding figures for public investors are 21.7 and 88.3 percent. This difference indicates that there is greater party polarization among private investors – there are strongly Democratic partisans and strongly Republican ones. The extent of partisanship varies little amongst passive, non-passive, and activist funds (not shown). The 5 most Democratic-leaning institutional investors are State Street Corp, BlackRock, ING Investments, Legg Mason and Colonial Management. The 5 most Republican-leaning institutional investors are Deutsche Bank Asset Management, Barclays, Allstate Insurance, Cigna, and Wells Fargo.

Finally, in Panel C, we present summary statistics for the variables used in the cosine similarity event plots and tests. Note that the number of observations is far smaller in these analyses, since each cosine similarity measure is calculated based on the Euclidean distance between pairs of 435-observation vectors of political giving.[24]

Appendix Table A.2 provides some additional details on the frequency and magnitude of acquisition events. The general sample in our main analysis includes 67,541 large acquisition events (as defined above) of which 5,601 are acquisitions by indexers when a firm is added into an index. The average firm is involved in 6.7 acquisitions per cycle and 14.4% of total stock is owned by new investors (6.3% by indexers). The average fraction of shares acquired by a given institutional investor during such an event is 2.4%. Firms and investors involved in index inclusion acquisitions are on average larger than those involved in other acquisitions.

[24]Additionally, as emphasized in Section 2.2, the Euclidean dot product for firm-investor giving is undefined when either investor or firm has a zero vector of PAC contributions in a given election cycle, and it is undefined for the cross-time measures for a given investor or firm when the organization has has a zero vector of PAC giving in either of two adjacent election cycles.

3 Ownership Shock and co-movement in political giving

3.1 Panel results

In this section, we explore how the relationship between a firm's and an investor's PAC giving changes following a large acquisition of shares (more than 1 percent) by the investor in that firm. In particular, we estimate the following regression, at the investor-firm-congressional-district-election-cycle level:

$$\begin{aligned} Log\,Firm\,PAC_{f,t,c} =& \beta_1 Log\,Investor\;PAC_{i,t,c} \times \mathbb{1}(Post_{i,f,t}) + \beta_2 Log\,Investor\,PAC_{i,t,c} \\ &+ \beta_3 \mathbb{1}(Post_{i,f,t}) + \upsilon_i + \omega_f + \gamma_c + \phi_t + \epsilon_{i,f,c,t} \end{aligned} \tag{1}$$

where $Log\,Firm\,PAC_{f,t,c}$ is the logarithmic transformation of one plus total PAC giving by firm f to the politician representing congressional district c in election cycle t. $Log\,Investor\,PAC_{i,t,c}$ is similarly defined for investor i. The basic regression specification includes fixed effects for investor i, firm f, congressional district c, and election cycle t, although we include richer ones in other specifications. $\mathbb{1}(Post_{ift})$ equals 1 for all election cycles after i has acquired a large stake in f, and an investor-firm pair remains in the sample (with $\mathbb{1}(Post = 1)$) as long as the investor maintains any stake in the firm. The main coefficient of interest is β_1, the estimated change in the relationship between investor and firm PAC contributions following an acquisition. Standard errors are clustered at the firm×investor level.[25]

We present the results in Table 1, with increasingly stringent specifications in terms of included fixed effects. The identifying variation we exploit comes from comparing the correlation of portfolio firm and investor PACs before versus after an acquisition occurs, benchmarked against this correlation for firm-investor pairs for which no such acquisition takes place at the same point in time. Our preferred specification is that of column 8, which includes firm × investor, firm × congressional district, firm × election cycle, investor × congressional district, investor × election cycle, and district × election cycle fixed effects. These fixed effects address a series of plausible concerns. In particular, the firm × investor fixed effects control for any average correlation in PAC giving in a firm-investor pair; for example, larger investors may acquire larger firms and larger organizations may make larger PAC contributions, a fact documented, for example, in Bombardini (2008). The firm × district fixed effects address the possibility that some firms give more to certain districts, for example because they operate in those districts, and are acquired by investors that also donate more to that district; similarly, the investor × district fixed effects address the possibility that some investors that give more to certain districts may be more likely to make

[25] In Appendix Table A.3 we compute standard errors clustered two-way at the firm *and* investor level, with similar results.

acquisitions in firms that also give to these districts. The firm × cycle and investor × cycle fixed effects account for the possibility that changes in PAC giving over time, either at the firm or investor level, may be correlated with investment or acquisition activities; for example, firms that expand during a certain period may donate more and also attract more investment, and investors may donate more during times of fast growth. Including firm × cycle fixed effects also accounts for changes in scrutiny, benchmarking, and governance that several papers like Pavlova and Sikorskaya (2023), Brav et al. (2022), and Chang et al. (2015) have documented following addition to an index fund and that may, in principle, affect the firm's political behavior.

Finally, district × cycle fixed effects control for the popularity of certain politicians that, because of their committee assignments or seniority, may attract more donations from both firms' and investors' PACs in certain election cycles.[26] After controlling for these fixed effects, our coefficient of interest β_1 is identified by the increased correlation post vs pre-acquisition of the PAC giving of firm and investor to a specific politician.

In all specifications in Table 1, the point estimate on β_1 is positive (ranging in magnitude between 0.013 and 0.032) and highly significant ($p < 0.001$), indicating that, after a large acquisition, a firm contributes more to a politician that receives larger PAC giving by the investor. The magnitude of the increase in this positive association is between 31 and 72 percent depending on the specification (these are calculated as β_1/β_2).[27]

A more straightforward interpretation of the magnitude of the acquisition effect is provided by a specification that uses indicator variables denoting whether the organization (firm or investor) gave to a district's representative in a particular election cycle, rather than the continuous political spending variables used in Equation (1). As we noted earlier, most firms and investors only give to a small subset of members of Congress; when combined with the candidate cap on spending ($2000 – $5600, depending on the year), these extensive margin measures capture much of the relevant variation. These results are provided in Appendix Table A.4. The point estimates are very similar to those of Table 1. On average, portfolio firms give to 1.1 percent of all congressional incumbents in an election cycle (this is including all portfolio firms, including those without a PAC, which by definition give zero to all congressional districts). The results in Table A.4 show that the probability of a portfolio firm giving to a particular congressional district increases by

[26] Our results are substantially unchanged if we employ politician fixed effects rather than district fixed effects. We report, as an example, the equivalent of our Table 1 results in Appendix Table A.6.

[27] In Appendix Table A.7, we obtain results similar to Table 1 when we exclude the largest 4 institutional investors (BlackRock, Vanguard, State Street, and Fidelity) from our analysis; the point estimates are in the range 0.013 – 0.027, suggesting that our results are not driven by a disproportionate influence from the very largest institutional investors. As a further robustness check, we plot the coefficient on the interaction of $\mathbb{1}(Post)$ and $log(1 + InvestorPAC)$ for our preferred specification in column 8 of Table 1, dropping one investor at a time for each of the top 50 institutional investors by assets under management. The estimated coefficient varies in a relatively narrow range, with a single exception (Banker's Trust NY), in which the coefficient increases to 0.016. These results may be found in Appendix Figure A.4.

1.3 to 3 percentage points after a large acquisition by an investor that gives to that congressional district. This represents an increase of between 31 and 70 percent relative to pre-acquisition giving (again, calculated as β_1/β_2).[28]

One concern with our approach thus far is that it focuses on large and discrete purchases for cases in which the investor's stake is initially zero. While this "event study" approach has an intuitive appeal, it also disregards a great deal of potentially relevant ownership variation. In Appendix Table A.8 we provide results that look at the broader correlation between PAC giving by investors and PAC giving by their portfolio firms. We use the following specification (and variants paralleling those of Table 1):

$$Log\,Firm\,PAC_{f,t,c} = \beta_1 Log\,Weighted\,Investor\;PAC_{f,t,c} + \omega_f + \gamma_c + \phi_t + \epsilon_{f,c,t}. \quad (2)$$

where $LogFirmPAC_{f,t,c}$ is the logarithm of one plus the total PAC giving of portfolio firm f to the representative in congressional district c in cycle t and $LogWeightedInvestorPAC_{f,t,c} = log\left(1 + \sum_i OwnPerc_{i,f,t} \times PAC_{i,t,c}\right)$ with $OwnPerc_{i,f,t}$ the investor i's ownership percentage of company f.

Note that these analyses are at the firm-district-election-cycle level. We measure investor giving based on the PAC contributions of all 13-F investors with a stake in the firm, no matter how small, weighted by the size of their average shareholdings during cycle t. Using this alternative approach, we again observe a strong correlation between firm and investor PAC giving.

In our final set of specifications in this subsection, we examine whether large acquisitions lead to changes in the partisan composition of firm PAC giving. Inference about political ideology from donation profiles is well established in the literature on campaign giving (Bonica, 2016). Specifically, in Table A.9 we look at whether an acquisition by an investor that gives primarily to Republican candidates is associated with a "rightward" shift in a firm's PAC giving. These analyses are similar in structure to those in the preceding sections; however, the level of observation is at the firm-investor-cycle level, since our measure of political giving is Republican donations as a fraction of total PAC giving (rather than giving to specific districts). Additionally, we limit the sample to politically active investors, to focus on acquirers that plausibly have substantive political preferences or well-defined political agendas. The specification we employ is the following:

$$Fraction\ to\ Republicans_{f,t} = \beta Fraction\ to\ Republicans_{i,t} \times \mathbb{1}(Post_{i,f,t}) + \upsilon_i + \omega_f + \phi_t + \epsilon_{i,f,t}, \quad (3)$$

[28] One additional benefit of measuring PAC giving with a binary variable is that sidesteps the issue of how one deals with zeros in the log specification. As our results indicate, the patterns we document are driven primarily by the extensive margin. As a further robustness for our analyses in Table 1, we repeat our preferred specification (column 8) using various constants for both investor and PAC giving (see Appendix Table A.5. Because of scaling, this mechanically affects the coefficient on the direct effects in the table (and we include the mean of log(X + Investor PAC) to aid interpretation). As expected, given the results in Table A.4 and the stability of the coefficient of interest in general, the coefficient on the interaction term is quite stable across specifications.

where we include firm, congressional cycle, investor and firm×investor fixed effects. The coefficient of interest, β, takes on a value of 0.0299, which indicates that, relative to the baseline share of 47.4 percent Republican giving, a firm that experiences a large acquisition by an investor that gives only to Republicans sees its Republican share increase by 3 percentage points, equivalent to a 6.3 percent increase. Interestingly, even with the most demanding set of fixed effects in column 5, which control for the any time-invariant pair characteristics, the coefficient on *Fraction to Republicans*$_{i,t}$ is also highly significant, indicating a partisan alignment between investors and the firms they ultimately own, possibly reflecting, for example, a match based on geography or industry (in addition to a shared ideology). Such alignment increases by 32% after acquisition, once again indicating a substantial amount of convergence post-acquisition.

Our results thus far are consistent with the view that institutional owners influence the political activities of their portfolio firms. However, there are several alternative interpretations that are also consistent with the evidence in Table 1 alone. In the following sections, we explore the plausibility of these alternative interpretations.

3.2 Event study and evidence from index inclusions

One primary alternative interpretation for the increase in the correlation of firm and investor political giving after an acquisition is that institutional investors tend to invest in portfolio firms that share their political preferences. While this concern is partly alleviated by the inclusion of a rich set of fixed effects in Table 1, it is still possible that there are time-varying and pair-specific unobservable factors that may drive both the acquisition and the convergence in donations. We take two overlapping approaches to evaluating this concern: (i) we explore how the relationship between investor and firm PAC giving evolves around the acquisition election cycle via an event study research design, and (ii) we focus our analysis on index-based acquisitions.

To implement the event study design, we run a variant of Equation (1) that uses a set of indicator variables to denote the election cycle relative to the acquisition date. Specifically, let $a(i,f)$ be the cycle when i acquires a large stake in f.[29] Our specification is as follows:

$$Log\,Firm\,PAC_{f,t,c} = \sum_{s=-3}^{5} \beta_s Log\,Investor\,PAC_{i,t,c} \times Cycle\_s_{i,f,t} + \Omega_{i,f,c,t} + \epsilon_{i,f,c,t} \qquad (4)$$

where $Cycle\_s_{i,f,t} = \mathbb{1}(t - a(i,f) = s)$ is an indicator function that marks the s^{th} cycle after (or before) acquisition cycle $a(i,f)$ and $s \in \{-3,-2,0,...,5\}$. We normalize $\beta_0 = 0$ and report the β_s values for three cycles before and five cycles after the acquisition. We include $\Omega_{i,f,c,t}$, which represents the set of fixed effects in column 8 of Table 1.

[29]Note that the acquisition quarter could occur any time within the two-year election cycle window.

While an event study allows us to detect pre-trends in the correlation of firm and investor giving, it is still possible that these shared political preferences are time-varying and investors privilege acquisitions into firms they expect will increasingly share their political preferences going forward.

To further rule out these particular interpretations as the sole explanation for our findings, we also replicate our analysis on the subsample of large acquisition events that result from new additions to the 1,203 indices in our sample of investors' portfolios. Upon inclusion of a firm in an equity index, many institutional investors re-balance their portfolios toward that firm as they track the index. A first-time inclusion in a stock index thus acts as an exogenous shifter to institutional investor block purchases that is orthogonal to the degree of political convergence over time within a specific investor-firm pair.

We start with the list of 698 investors that Bushee (2001) defines as "quasi-indexer" and that we refer to as "passive". An index-acquisition event is defined as a cycle when two conditions are simultaneously met: (i) a stock is added to an index and (ii) the same stock is included for the first time in the portfolio of a passive investor.[30,31]

The results of the event study are shown in Figure 1, for both the full sample as well as the subsample of acquisitions that coincide with index inclusions. The point estimates in the event plot are based on our preferred specification in column 8 of Table 1, but the pattern is virtually identical for other specifications.[32]

For the index inclusion subsample – for which the ownership shock can be more readily interpreted as exogenous – we see a clear and discrete increase in the interaction term in the post-acquisition periods. We observe a slight pre-trend for the full sample. This suggests that a convergence in interests may partly drive acquisitions outside of the index sample, or the possibility that firms cater to fund managers' preferences in order to court them as investors. This pre-event convergence underscores the value of our approach of focusing on the sample of index inclusions, which is not subject to the same concerns, and for which we do not see a pre-trend in Figure 1.

For completeness, in Table 2 we report the analogous results to Table 1 for the index inclusion subsample. Across all eight specifications, the findings are very similar to those of Table 1. For

[30] We use condition (ii) because we cannot link passive investors to a specific index.

[31] We performed a similar exercise restricting the definition to condition (i), and obtain results that are virtually identical to those reported below.

[32] While imperfect, the comparison of the index versus non-index sample results, with the latter including the universe of large acquisitions of any firm with a PAC, is suggestive of a certain degree of external validity. The results across the two sets of estimates are quantitatively similar. While the index sample results present internally valid estimates, the broader non-index sample results provide quantitatively similar estimates only under two specific conditions that must be satisfied. The first condition is limited selection bias on the political convergence margin for the non-index sample. The second condition is stability of the parameters across the index acquisition population and the broader universe of non-index acquisitions.

instance, the parameter estimate for β_1 in the restrictive column 8 of Table 1 is 0.0135, while the corresponding estimate in column 8 of Table 2 is 0.0132; the estimates from our index sample and our full sample fall inside the 95 percent confidence interval of each other and we cannot reject the equality of the two coefficients at standard statistical confidence levels.[33] This rules out a substantial role for endogenous drivers of acquisitions in biasing our baseline estimates, and suggests that our core findings may apply across the full sample.[34,35]

We note that, for both the full sample and the sample of index-based acquisitions, the point estimate on the direct effect of *Log Investor PAC,* β_2*,* is positive in all specifications. It is easy to see why this might be so for the first six columns, which do not include cycle $\times$ district fixed effects – in the absence of this set of controls, β_2 may simply pick up the fact that some districts have particularly influential legislators in certain years, thus attracting more donations from all firms and all investors. While the β_2 point estimate falls with the inclusion of cycle $\times$ district fixed effects, it remains large and significant even in the last two columns. This could reflect some residual baseline selection, with investors being more likely to invest in politically-aligned firms, possibly as a result of the time-varying political orientation of a common industry in which both firms and investors operate. Importantly, this explanation applies to indexed acquisitions as well, because many of the index funds in our dataset are sector-specific investors (e.g., Energy Income Partners). To further investigate this possibility, we perform our analysis limiting the sample of acquisitions induced by the largest (and most generalist) indexers in the industry, called the "giant three" by Bebchuk and Hirst (2019) with total assets under management of $25 trillion, comprised mostly of public equity. When we focus in Table A.11 on these pure "generalists" we find that the β_2 in column 8 is a precisely measured zero after we control for cycle-district effects to absorb the role of influential politicians in specific cycles.

[33]The point estimates are also near-identical for both the full and index-based samples when we use the discrete version of the specification.

[34]As we note earlier, firm $\times$ cycle fixed effects absorb any general shifts in the level of giving that arise from entry into an index as a result of changes in investor composition or scrutiny. To the extent that a shift in investor base also leads to an increased concordance between firm PACs and institutional investor PACs, it could impact interpretation of our estimates. To assess this concern, we estimated an augmented version of our main analysis which includes a term which captures the fraction of shares held by active investors, as well as its interaction with the log of investor PAC giving. Given that the concerns around this compositional shift are particular to index inclusion, we focus on the index-based sample in this analysis. These findings may be found in Appendix Table A.12. We find that the interaction of investor PAC giving and $\mathbb{1}(Post)$ is similar to what we find in our main analysis (though somewhat larger). These findings suggest that the results from our index-acquisition are unlikely to be distorted (relative to the overall sample) by changes in investor composition that come with index inclusion.

[35]We also provide an index-based version of the analysis in Equation (2), in which we define ownership based *solely* on acquisitions by passive investors around index entries. Prior to index entry, by definition these ownership values are zero, so this variant captures the spirit of our event study approach, while also having the benefit of avoiding concerns around endogeneity of acquisition targets. These results, presented in Appendix Table A.13, also indicate a significant correlation ($p < 0.001$) between (index-based) investor PAC giving and firm PAC giving, though the point estimates are smaller than those based on the full sample.

Table 3 focuses on divestments rather than acquisitions, as we anticipate a symmetric (negative) effect from these ownership changes. The sample in this case includes investor-firm pairs in which the investor held its stake of at least 1 percent for at least one election cycle (the pre-period), and then the investor divested its holding in the given firm in a single quarter (and hence within a single cycle, the post-period). We document the opposite patterns from those observed in Table 1. The point estimates on the interaction of post-divestment and *Log investor's PAC* are negative in all cases and vary between -0.074 and -0.058, which indicates that the positive association between firm and investor PAC giving declines following a divestment. We provide results on divestment based on the discrete versions of the PAC giving variables in Appendix Table A.14, and in Figure 2 we plot the coefficients of an event study regression comparable to that of Equation (4), where $Cycle\_s_{i,f,t}$ now marks time since divestment, rather than since acquisition. Figure 2 shows a clear decline in the correlation between firm and investor political giving after divestment takes place.[36]

3.3 Investors influencing firms, or firms influencing investors?

We have shown that the increased correlation in firm-investor political giving is robust to limiting the analysis to the arguably more exogenous subsample of large acquisition events. However, none of the evidence we have presented thus far allows us to discern whether investors influence portfolio firms' political giving, or vice-versa.

To make progress on this question, we turn to the cosine similarity measures introduced in Section 2.2.[37] In particular, we separately assess changes in the between-election-cycle changes in the (cosine) similarity measures for investors and portfolio firms around a large acquisition. If investors influence firms rather than the other way around, then we would expect a greater decline in the between-cycle similarity measure for portfolio firms than for investors. This pattern would suggest that investors' giving is more stable compared to portfolio firms' giving. If instead firms'

[36]The immediate decline at $t = 0$ that is evident in Figure 2 stands in contrast to the gradual increase in co-movement for acquisitions. We can speculate why we might observe this sharper shift around divestment relative to acquisitions. One possible explanation is that the process of learning about investor preferences takes time, so that we observe the gradual convergence in Figure 1. By contrast, post-divestment there is no longer any need to cater to former investors' preferences, so adjustment is instantaneous. Note that this would not be the case under some other candidate explanations. If there were inertia in donation patterns or if investors help to broker ties to particular legislators that firms then wish to sustain, we would not see the disruption in co-movement that is observed in Figure 2. The latter point is potentially interesting to consider in evaluating the extent to which the convergence we document in our main results is a reflection of strategic advice and/or introductions that investors make on their portfolio companies' behalf, versus catering to investor preferences. The rapid divestment is harder to reconcile with strategic investor assistance. We return to questions of investor and firm motivation in Section 4.1 below.

[37]We offer a distinct approach in Appendix Table A.15, where we examine how *average* pre-acquisition PAC giving (over periods $t-4$ through $t-1$) by investors versus firms is correlated with post-acquisition giving by their counterpart; these analyses yield a similar message to the cosine similarity results we report in the main text, in that past investor giving predicts firm giving post-acquisition, whereas the converse is not the case.

political agendas influence investors' giving, we expect the opposite pattern.

We start by confirming the basic finding of Figure 1 that PAC giving by firms and investors become more similar post-acquisition, with the difference that, by construction, the cosine similarity measure is only defined for non-null giving. In this first analysis, we estimate the following event study regression where the δ_s parameters capture how firm-investor cosine similarity evolves around the acquisition date:

$$Cos(x_{i,t}, x_{f,t}) = \sum_{s=-3}^{5} \delta_s Cycle\_s_{i,f,t} + \upsilon_i + \omega_f + \phi_t + \epsilon_{i,f,t} \tag{5}$$

where, as before, $Cycle\_s_{i,f,t} = \mathbb{1}\left(t - a\left(i,f\right) = s\right)$ is an indicator function that marks the s^{th} cycle after (or before) acquisition cycle $a\left(i,f\right)$ and $s \in \{-3,-2,0,...,5\}$. The omitted cycle is $Cycle\_0$. We include firm, investor, and cycle fixed effects.

The results of this event study specification are presented in Figure A.3, for the full sample and also for the subsample of acquisitions based on the index inclusions used in Table 2. Consistent with Figure 1, we see a clear increase in the giving similarity of firms and investors starting in the acquisition period, with a further increase in similarity in the next two election cycles, before leveling off in the third post-acquisition cycle. The size of the increase is large: at $Cycle\_0$, just as the acquisition takes place, the mean investor-firm cosine similarity is 0.10 and it rises by between 0.02 and 0.03 – an increase of 20-30 percent – by $Cycle\_4$. This pattern is present also for the index-based subsample. [38]

We now turn to our main goal in this section, which is to separately assess changes in political giving by investors and portfolio firms around a large acquisition event. Intuitively, if a shift in portfolio firm behavior is driving the convergence we see in Figure 1, we should observe a sharper break from past giving for firms than for investors post-acquisition, and vice-versa, if convergence is driven by a shift in investor behavior. If both are responsible for convergence, we may expect less of a contrast between portfolio firms and investors. We capture changes in giving via the over-time cosine similarity measure we defined earlier, $Cos(x_{j,t}, x_{j,t+1})$, which reflects the similarity in giving by organization j between election cycles t and $t+1$.

In Table 4, we present a series of comparisons of firm versus investor cosine similarity measures around acquisition dates. In the first row, we provide the simplest comparison of $Cos(x_{i,t}, x_{i,t+1}) - Cos(x_{f,t}, x_{f,t+1})$ around acquisition date t. We observe that, on average, investor behavior is more consistent around acquisition dates, so that $Cos(x_{i,t}, x_{i,t+1}) > Cos(x_{f,t}, x_{f,t+1})$, indicating that

[38] An important caveat for the interpretation of Figure 2 is that each congressional cycle in the figure covers a two-year period. In certain cases (but not always) the distribution of divestment events or PAC donations is not uniform over the two-year period. For Figure 2, a substantial share of divestments takes place relatively early in the two-year cycle – we find, for example, that nearly a third of divestments occur in the very first quarter of an election cycle, whereas acquisitions tend to be more evenly distributed.

giving by investors is more stable than giving by firms.

Of course, it is possible that investor PAC giving is more stable in general. We thus present the difference-in-differences in cosine similarity for the acquisition period relative to the period immediately preceding the acquisition. That is, we look at $[Cos(x_{it}, x_{i,t+1}) - Cos(x_{i,t-1}, x_{i,t})] - [Cos(x_{ft}, x_{f,t+1}) - Cos(x_{f,t-1}, x_{ft})]$. This difference-in-differences estimate, reported in the second row of Table 7, is 0.075 (significant at the 1 percent level), again indicating that investors are relatively more stable, compared to firms, or that firms move closer to investors, and not vice versa.

Based on visual inspection of the event plots in Figures 1 and A.3, the convergence in giving appears to take place over at least a couple of election cycles. We thus repeat the preceding comparisons using a two-cycle window. This longer event window reduces the sample size substantially, as it requires: (i) PAC giving by both parties across five election cycles; and (ii) firms to acquire and hold their stakes in target firms for two post-acquisition cycles. For this longer difference, the simple post-acquisition change and the difference-in-differences estimates (0.334 and 0.083 respectively) again both indicate that convergence is driven by shifts in firm behavior. In other words, this evidence further corroborates the view that investors have an influence on the political activity of the firms in their portfolios.

Given that the evidence favors the view that investors influence firm giving (an interpretation that will be further bolstered by material in the next two sections), we now offer a back-of-the-envelope calculation to provide a sense of the overall amplification of investor influence via portfolio firms' political giving. Recall from our main results in Table 5 eftab:main that the incremental probability of a donation by a company is 1.3 percentage points higher post-acquisition if the investor also donates to that politician. Assuming that influence is comparable across all portfolio firms, the average number of portfolio firms in which an investor holds at least a 1 percent stake is 48, so that investors' influence is amplified by 63 percent relative to the baseline giving.[39]

Before turning to a discussion of mechanisms, we note that our staggered difference-in-differences estimates are subject to the critiques of, e.g., Goodman-Bacon (2021); Callaway and Sant'Anna (2021); Sun and Abraham (2021). We include a discussion of these concerns as well as a set of analyses which assess the extent to which our analyses may be corrupted by the "bad comparisons" problem that may emerge in two-way fixed effects models with staggered treatment timing. Since our primary conclusion is that our results are largely unaffected by the concerns raised by this literature, we confine this material to Appendix A.5.

[39]This number is obtained as $0.013 \times 48 \times 2{,}165/2{,}124$, where \$2,165 is the mean firm PAC giving and \$2,124 is the mean investor PAC giving.

4 Mechanisms: Motivations for and channels of influence

In this section, we explore the mechanisms, broadly defined, that may account for our main results. We distinguish between two types of mechanisms. First, we wish to understand the possible *motivations* that both investors and firm management may have in aligning their political giving. Second, we provide a qualitative discussion as well as some empirical evidence on the *channels* through which influence may take place. We conclude this section by taking stock of what our analyses suggest about the welfare consequences of investor influence over political giving.

4.1 Firms' and investors' motivations for shifting political activity

The evidence we have presented thus far points to the influence of institutional investors on the political giving of portfolio firms. Our aim in this section is to better understand why investors engage in this influence activity and why firms' managers may be receptive to their efforts. We organize our findings as follows. First, we present evidence that, on the portfolio firm side, convergence with investor political giving is much stronger at times when managers plausibly are under threat due to contentious proxy votes or other crises, consistent with a manager-catering interpretation of our main results. We then explore whether the reasons behind investors' influence efforts are more likely driven by profit motives or personal political preferences. We present several pieces of evidence that collectively suggest an important role for personal preferences: (a) in heterogeneity analyses, we show our results are driven by investors with more partisan giving; (b) firm giving becomes less relevant for business strategy as institution investors' holdings increase, as captured by shifts away from politicians that serve on committees that oversee areas that are important for the firm business strategy; and (c) portfolio firm PAC giving is strongly correlated with institutional investors' individual management and employee giving.

4.1.1 Firms' motivations: proxy votes, crises, and catering

In describing the increased role of large index funds over corporate decision-making, Coates (2023) observes that institutional investor support is crucial for any contentious shareholder vote, as "the collective vote of indexed investors will almost always include the median vote in [contested proxy fights.]" He goes on to suggest that managers will therefore actively court the favor of such investors, and that there is not necessarily any need for investors to exert influence directly since, "[r]ational managers anticipate goals and preferences of index fund providers, and then enact them, to some extent, without the need for explicit, public directives or exercises of power." To the extent that there is active engagement by investors with management, as we discuss in Section 4.2, it rarely comes via public interactions.

Motivated by these observations – the pressure on managers to cater to the investors' interests particularly during contentious proxy votes; and the lack of any publicly observable influence-seeking actions by investors – we provide indirect evidence that convergence in political giving may result from managerial catering, by exploring how our main results vary depending on whether managers face immediate shareholder pressures. We use two measures of pressure on management. First, directly inspired by Coates (2023), we look at variation in investor influence as a function of whether there was at least one shareholder proposal up for a vote in a given two year election-cycle period. Second, since shareholder support may even help to preempt a proxy vote, we take a broader indication of managers' insecurity: whether the firm had at least one controversial ESG incident during an election cycle.

Focusing first on proxy votes as a source of pressure, to implement this test, we obtain all shareholder proposals for the firms in our sample from 2003 (when proxy vote coverage begins) through 2018, from Institutional Shareholder Services (ISS). We use these data to construct an indicator variable, $\mathbb{1}(Vote)$, which captures whether there was at least one shareholder proposal in a given two-year election-cycle period. We then augment our main specification from Equation (1) with the third-order term $log(1+PAC) \times \mathbb{1}(Post) \times \mathbb{1}(Vote)$ (along with appropriate lower-order terms). This coefficient captures the extent to which the increased co-movement in investor and firm PAC giving is higher at times when management may be particularly motivated to cater to investor preferences. For these analyses, we limit the sample to firms in the ISS dataset, for 2003-2018 (the years covered by ISS data). Given the time restriction as well as the fact that only 21 percent of firms have at least one shareholder vote recorded in ISS, our sample size is considerably smaller for these analyses. These results are presented in columns 1 and 2 of Table 5. If we focus on our favored specification column 2, the point estimates imply that the extent of post-acquisition co-movement is about three times higher during shareholder-vote cycles (0.0068 versus (0.0068 + 0.0176)).

Turning to ESG crises, we use data collected by RepRisk, a firm that provides "ESG and business-conduct risk research," with data available 2008 onward. We follow RepRisk's classification to define an ESG crisis as a highly severe, highly visible, and novel incident. The specification is otherwise identical to that of our proxy vote analysis, except that we replace the indicator variable for shareholder votes with, $\mathbb{1}(ESG)$, which reflects the presence of a major ESG incident.[40] These results appear in columns 3 and 4 of Table 5, and offer a similar qualitative implication as the earlier results: the post-acquisition increase in co-movement is larger in times of crisis for the portfolio firm.

Overall, we take these two findings as suggestive evidence of managerial catering as a primary

[40]We similarly limit these analyses to firms with at least one major ESG incident (46 percent of our initial sample of firms) for 2008 onward, so again the sample size is much smaller relative to our main results.

explanation for firms' responsiveness to investor political preferences.

4.1.2 Investors' motivations: strategic relevance, investor attributes, and personal versus business motivations

We posit that investors have two primary potential motivations for exerting influence over the political activities of firms: personal political objectives and strategic business objectives. We take several approaches to providing evidence on the extent that either or both of these motivations more plausibly accounts for our main results.

Institutional ownership and the strategic relevance of political giving

In this section we examine the extent to which institutional investors induce portfolio firms to shift away from the types of politicians they previously supported, or instead add new politicians to their rosters of PAC recipients. We specifically distinguish politicians based on their strategic relevance to a firm, which will help us make a sharper distinction between personal and strategic motivations of investors.

We begin by investigating whether total firm PAC giving increases with the overall degree of institutional ownership. Our main results on the influence of institutional investors on political giving need not imply such an expansion. For example, firm stakeholders may compete for political resources in what is effectively a zero-sum game, in which case the post-acquisition shift in giving would reflect a reallocation rather than expansion of political activity. Alternatively, if firms continue their core profit-motivated political giving irrespective of ownership, the addition of new institutional investors may lead to an expansion of political giving, as firm resources are devoted to these new owners' interests.

In the first three columns of Table 6, we present the relationship between institutional ownership (the fraction of a firm's stock owned by an institutional investor) and overall PAC giving at the firm-year level, including fixed effects for industry and cycle (column 1), firm and cycle (column 2), and industry $\times$ cycle (column 3). By including total institutional investor ownership and not just shares held by indexers, we are considering broad changes in the ownership structure of the firm at the expense of cleaner identification. Therefore the fixed effects we introduce attempt to control for characteristics that may make a firm more likely to be the target of institutional investors and also affect the firm's political giving. While firm fixed effects control for time-invariant such firm characteristics, when we introduce interactions with time fixed effects, we are forced to zoom out to the industry. Industry $\times$ cycle fixed effects account for broad trends in both political giving and institutional investor ownership within a NAICS 6-digit industry. In all cases, institutional ownership is a positive predictor of PAC giving, significant at least at the 5

percent level, though unsurprisingly the point estimate is far smaller when we focus on within-firm variation in column 1.

We next examine the *composition* of firm political donations as a function of institution ownership, to explore whether resources devoted to investors' political interests draw contributions away from those that are of more direct strategic importance to the firm. To do so, we consider how institutional ownership affects giving to politicians on committees that oversee issues frequently lobbied by a firm, a well-established measure of politicians' importance to firms (see, e.g., Stewart III and Groseclose, 1999; Bertrand et al., 2020). Intuitively, if institutional investors are diverting resources away from a firm's core political strategy, it should result in a decline in giving to politicians on strategically important committees for these firms. If institutional investors influence firms to expand their political giving to include investors' interests (while leaving firms' strategic giving intact), we would not expect any decline in contributions to these relevant politicians.

We define as strategically important those politicians who sit on congressional committees overseeing issues on which a firm actively lobbies. These politicians are identified based on lobbying reports that are available from the Senate Office of Public Records (and fielded on behalf of the firm by lobbyists), which contain information on the specific issues (e.g., Trade, Energy, Budget, etc.) about which the firm is petitioning the government. Following Bertrand et al., 2020, we apply a crosswalk between the firm's lobbying issues and the relevant congressional committees covering those issues. The members of Congress sitting on those committees form the set of strategically important politicians for that firm.[41]

In columns 4-6 we show the relationship between overall institutional ownership and giving to strategically important politicians, using specifications that parallel those of the first three columns. [42] In all specifications, we observe a decline in giving to politicians that are of strategic interest to the firm in all specifications. We take these results as suggestive evidence that institutional investors' motivations are not to force firm management to align political activities with business strategy, but rather to induce managers to expend political resources on investors' personal agendas. In the final set of columns 7-9, we use the fraction of giving to relevant politicians as the dependent variable, which yields similar results. The point estimates imply a one-to-one correspondence between the fraction of a firm held by institutional investors and the fraction of giving that goes to business-relevant politicians.

[41]Membership of each congressional committee is available through Stewart III and Groseclose (1999) and subsequent updates of the original data.

[42]Note that, since this relevance measure is available only for firms that lobby at least once during the period we study - 32 percent of our sample overall - the sample is far smaller in these analyses, relative to those on overall giving. If we limit our sample in columns 1-3 to these firms, there is no statistically significant relationship between institutional ownership and total giving.

Heterogeneity across investor types

In this subsection we employ heterogeneity analysis to further shed light on investors' motivations, and whether the convergence in investor-firm PAC giving is driven by an institutional investor's efforts to change a portfolio firm's business strategy, or simply reflect investors' partisan tastes.

Active versus passive investors We begin by examining whether the effect we estimate is different for passive versus active investors. Following Appel et al. (2016, 2019), we classify investors as passive if they are categorized by Bushee (2001) as Quasi-Indexers and classify investors as active if they are categorized as Transients. We present a variant on Equation (2), in which we split the PAC contributions of investors by active and passive investors (see Equation (A.1) in Appendix A.3). The results, reported in Table A.17, show that the increase in alignment between firm and investor PAC giving is more pronounced for passive investors. We attribute this result to the well-documented fact (e.g., Bushee, 2001, Appel et al., 2016) that the holding periods of passive owners are longer on average, and therefore there are stronger incentives for the firm to align their giving with passive investors, a point we will return to shortly.

Private vs publicly-owned investors We next consider a split of investors based on whether they are privately or publicly owned. The latter includes institutional investors such as BlackRock, State Street, and Invesco, while the former are funds such as Vanguard and Fidelity. Since fund managers at private investment firms tend to face less outside scrutiny, their political giving may be more likely to reflect the preferences of their owners and managers. Indeed, and interestingly, we find that private funds do tend to have more partisan giving profiles, a point we return to shortly when we examine partisanship in giving.

The results appear in Table 7.[43] Columns 1 and 2 provide the results of specification (1) for private versus public investors respectively, using the saturated specification that includes the set of fixed effect from our preferred specification in Table 1, column 8 (the comparisons we report here are unaffected by the choice of specification). While the coefficient of interest on the interaction of investor PAC giving and $\mathbb{1}(Post)$ is significant at the 1 percent level for both sub-samples, the point estimate is more than two times larger for private firms, which is consistent with their having greater leeway to act on the political preferences of owners and managers.

Partisanship A third approach to capturing heterogeneity in personal investor preferences versus business strategy concerns is the extent of partisanship in an investor's political donations.

[43] In Appendix Table A.18 we further break down the results by investor type. We find that Investment Advisors and Investment Companies (e.g., State Street and Fidelity), together with Bank Trusts (e.g., JPMorgan Chase and Bank of America), drive the results we have uncovered thus far.

In columns 3 and 4 we distinguish among *types* of politically active investors, based on whether they tend to give primarily to one party, versus a mix of Republican and Democratic giving.[44] The intuition for this sample split is that investors and firms motivated purely by financial gain will be more apt to give to politicians from both parties, strategically targeting, for example, key members of relevant committees, or those involved in crafting potentially important legislation. To implement this split, we define partisanship as $|D/(D+R) - 0.5|$, where D and R are overall PAC donations to Democrats and Republicans respectively in a given election cycle. We then take the mean for each investor over all cycles for which it had a PAC during our sample period and classify investors as "More Partisan" if this value is above the sample mean over all investors.[45] The coefficient on the interaction of interest is twice as large for *More Partisan* investors (0.020) compared to *Less Partisan* investors (0.010). The magnitude of this difference appears even larger when we consider that the average of the dependent variable is 0.085 for column 3 and 0.131 for column 4. In terms of magnitudes, these figures imply that, after a large acquisition by a *More Partisan* institutional investor that contributes 100 percent more to a given candidate, the acquired firm's giving to the politician increases by 23.5 percent. The comparable figure for a *Less Partisan* investor is 7.6 percent.[46]

Collectively, the results in this subsection provide suggestive evidence that investors are motivated more by their personal political preferences rather than the collective profits of an investor's portfolio of companies in influencing the PAC giving of portfolio firms.

Employee versus PAC giving

In this final subsection on investor motivation, we compare the post-acquisition convergence in investor and firm PAC giving to that of individual political giving of *managers and employees* of the institutional investor and the acquired firm's PAC. Interpretation of these results is complicated by the fact that both PAC and individual giving may reflect strategic concerns (e.g., Richter and Werner, 2017); we assert, though, that individual donations are plausibly more a reflection of investing managers' personal preferences rather than the investor's strategic interests relative to the investor PAC. Thus, if we observe a large increase in co-movement between investor employee giving and firm PAC giving after an acquisition (controlling for investor PAC giving), we will take it as reflecting, at least in part, more personal motivations.

We collect investor employee individual political giving from the Federal Election Commission. While a firm's corporate PAC is a segregated fund that collects contributions and in turn con-

[44]The fact that institutional investors vary widely in their political orientation echoes the findings in Bolton et al. (2020), where ideology is inferred through investors' proxy votes.

[45]The number of observations is larger in column 4 because Less Partisan investors are involved in significantly more acquisitions.

[46]In Appendix Table A.16 we report these results for index inclusion acquisitions only.

tributes to candidates in the name of the firm, individual contributions are made by each person under their name. Individuals, though, are asked to report their employer when donating to candidates, so we link the reported employer name to our list of institutional investors (see Appendix A.6 for details on the matching procedure).

In Table 8, we augment our specifications from Table 1 with terms for both the direct effect of employee giving ($log(1 + Indiv.Giving)$) as well as its interaction with $\mathbb{1}(Post)$. Even conditional on PAC giving (and its interaction with $\mathbb{1}(Post)$), we observe a highly significant increase in co-movement of firm PAC giving with investor employee giving after an acquisition takes place. As one way of comparing the relative magnitudes of the effects of investor PAC versus investor individual employee political giving, we give at the bottom of the table the ratio of the post-acquisition change in co-movement (the coefficient on the interaction term) to the baseline effect (the coefficient on the direct effect of giving). This ratio is higher for employee giving for all specifications, and is more than four times greater in our preferred specification in column 8.

We take these results as further suggestive evidence that personal political preferences rather than strategic interests are the primary motivation for investor influence.

4.2 Potential channels of influence: the role of the board

We now turn to exploring *how* investors might go about influencing firm political giving. This is a challenging task, since as Coates (2023) describes (and as we discuss above) some influence is implicit – firm management can infer investor preferences from their statements or actions. On occasion, investors' positions are very public and explicit, as in opposition to political donations to election deniers following the January 6 storming of the Capitol.[47] In such instances, there is likely positive publicity from these statements, and so they are made in a public manner. It is however entirely possible that there are efforts at political suasion that take place out of public view for which the objective is less likely to be well-received by the public. There are ample opportunities for investors to convey their preferences, implicitly or explicitly, via "engagements," which are described by Coates (2018) as not-infrequent "meetings" between fund staff and representatives of portfolio companies, "sometimes in person, more often by phone, sometimes just by email." As far as we know, it is impossible to quantify the frequency and content of these engagements, but it is not impossible that in communicating investors' preferences on various management and corporate issues, the topic of political activity may arise. In the absence of direct evidence on the content of such conversations, we employ an observable measure that, we argue, offers a readier channel of communication between an institutional investor and its portfolio companies: board representation.

[47] See, e.g., "What Fortune 500 Companies Said After Jan. 6 vs. What They Did," *ProPublica*, November 1, 2022, for BlackRock's policy.

In approximately five percent of the acquisitions in our sample, an investor obtains a seat on the portfolio company's board. Since board membership provides a direct channel for an investor to influence corporate decision-making (Calluzzo and Kedia, 2019), we conjecture that investor-firm similarity will further increase after an investor obtains board representation. We use an indicator variable that denotes whether investor i has a seat on portfolio firm f's board, and run specifications which parallel those presented in Table 1, augmented with third-order interaction of *Log Investor PAC*, $\mathbb{1}(Post)$, and an indicator variable denoting that an investor obtained a board seat following the acquisition ($\mathbb{1}(Board)$). These results appear in Table 9.[48] Across all specifications, we see higher investor-firm PAC co-movement when an acquisition comes with a board seat.

4.3 Welfare implications of investor influence

We conclude this section by taking stock of the implications of the preceding results for welfare. While our welfare assessments are necessarily speculative, our findings collectively point away from firm profit maximization.

First, Table 6 shows that firms' PAC donations increase with institutional ownership and this increase appears to be directed to politicians who are not on congressional committees relevant to a firm's business. This change in giving is not merely additive, as some firm PAC donations are deflected away from committees relevant to a firm's business (and thus towards irrelevant ones).
Second, in Table 8, we show that investor personal giving correlates more strongly with portfolio firm PAC giving than investor PAC giving. If one interprets – as seems plausible – individual donations by executives and employees of an institutional investor as more sensitive to partisan preferences than the investor's corporate PAC (which may be more scrutinized for profit maximization), it strengthens the case for potential governance distortions and welfare losses.
Third, the co-movement in investor-firm PAC giving is strongest when there are votes on shareholder proposals at the portfolio firm. In these circumstances, firm management (which also controls the firm's PAC giving) needs the support of large investors, and our findings suggest that firm management appears to cater to investors' political objectives especially at these difficult times. A firm's profit-maximizing political strategy could certainly change around shareholder proposals. But it is unclear that it should do so systematically in a way that pleases the investor, and when the investor's support is needed by the firm's management.
Fourth, the heterogeneity analyses in Table 7 show that our results are primarily driven by ideo-

[48]Note that the second-order interaction of *Log Investor PAC* and $\mathbb{1}(Board)$ is redundant since board seats are only obtained after an investor acquires a sizeable stake. The direct term $\mathbb{1}(Board)$ also drops out in specifications that include investor $\times$ firm fixed effects, since it is an acquisition-specific attribute. We do not allow it to vary over time since its interpretation would then be further complicated by the increasingly strong impact of investor preferences over time, as shown in Figure 1.

logically partisan investors. It is precisely these investors with strong political views that should be more willing to distort firm's decisions.
Finally, turning to earlier material from Section 3.2, Figure 3 shows a sudden drop in co-movement after divestment. This shows that investor-driven donations seem ephemeral, and it is harder to see how these political choices would be valuable or central to the firm's objectives, if they are immediately abandoned the moment the investor exits.

While no individual result provides decisive evidence on the welfare consequences of investor influence on its own, collectively our findings are most readily reconciled with investor political preferences driving our main findings rather than profit maximization.

5 Conclusion

The shift toward institutional ownership of public companies is one of the most prominent financial trends in recent history. We investigate the implications of this shift for the political influence-seeking activities of U.S. corporations, a topic with relevance both for the governance role of institutional investors in general, and also for our understanding of the amplification of influence in the U.S. political system.

We present evidence of an increased similarity in political giving between a publicly traded firm and an institutional investor after the investor completes a large block purchase of the firm's stock. Our approach sidesteps selection concerns by making use of acquisitions due to inclusions of firms in stock indexes, as for investors holding indexes such acquisitions are orthogonal to political alignment of the ensuing block purchase. We further present suggestive evidence that investor influence seems driven more by personal political preferences of investment managers, rather than profit-maximizing political strategy.

Overall, the evidence indicates that institutional investors exert influence over the behavior of portfolio firms, which is pertinent, for example, to the ongoing debate over the consequences of common ownership, and raises concerns over the influence of a small collection of investment managers in the political realm. The latter is of relevance to the political economy and finance literature as (i) this phenomenon may result in a misuse of corporate resources, a typical concern in the corporate finance literature on governance and political behavior of firms; (ii) it is also a potentially illegal activity as "*[r]eimbursing someone for a contribution or otherwise contributing in the name of another person can result in substantial civil penalties and jail time*";[49] and most importantly (iii) it is an obvious channel through which unequal resources may contribute to an outsized political influence of certain groups of voters.

[49] *"52 U.S.C. §§ 30122 and 30109 (formerly 2 U.S.C. §§ 441f and 437g)"* according to the FEC, available https://www.fec.gov/updates/contributions-in-the-name-of-another-are-strictly-prohibited/

Our findings contribute to the legal and policy debate over the nature of corporate political activity. Whereas the Supreme Court took shareholder profit maximization as firms' objective in expressing their political "voice", our results suggest that controlling interests – whether senior managers or concentrated shareholders – also determine how businesses wield their political influence. The shareholder maximization perspective of corporate political voice might thus be viewed as aspirational rather than factual. Indeed, it is captured as the very first principle laid out in the Center for Political Accountability's (CPA) Model Code of Conduct for Corporate Political Spending, which states that "*Political spending shall reflect the company's interests, as an entity, and not those of its individual officers, directors, and agents.*"[50]

Finally, our results underscore the general concerns raised by Coates (2018) – that the rise of institutional ownership may give too much control to a concentrated number of individuals, and especially in politics. These findings may therefore give greater urgency to solutions proposed by Coates and others – for example by promoting stewardship codes such as the CPA's Model Code, devolving voting rights to those invested in a fund, or simply disclosing potential conflicts. Coates (2023) further observes that similar concerns may be raised by the rise of private equity funds which may similarly exert control – politically and otherwise – over the assets they own. While it is beyond the scope of this paper to study amplification of political influence by private equity investors, Coates' writing indicates the potential for our results to speak to a broader economic problem.

[50] See https://corpgov.law.harvard.edu/wp-content/uploads/2020/11/CPA-Wharton-Zicklin-model-code-of-conduct-for-corporate-political-spending-10-13-20-.pdf, last accessed December 12, 2022.

References

Aghion, P., J. Van Reenen, and L. Zingales (2013). Innovation and institutional ownership. *The American Economic Review 103*(1), 277–304.

Anton, M., F. Ederer, M. Gine, and M. Schmalz (2022). Common ownership, competition, and top management incentives. *Journal of Political Economy*.

Appel, I. R., T. A. Gormley, and D. B. Keim (2016). Passive investors, not passive owners. *Journal of Financial Economics 121*(1), 111–141.

Appel, I. R., T. A. Gormley, and D. B. Keim (2019). Standing on the shoulders of giants: The effect of passive investors on activism. *The Review of Financial Studies 32*(7), 2720–2774.

Autor, D., D. Dorn, G. H. Hanson, G. Pisano, and P. Shu (2020). Foreign competition and domestic innovation: Evidence from us patents. *American Economic Review: Insights 2*(3), 357–374.

Azar, J. and X. Vives (2021). General equilibrium oligopoly and ownership structure. *Econometrica 89*(3), 999–1048.

Backus, M., C. Conlon, and M. Sinkinson (2019). The common ownership hypothesis: Theory and evidence. *Brookings papers*.

Bebchuk, L. A., A. Cohen, and S. Hirst (2017). The agency problems of institutional investors. *Journal of Economic Perspectives 31*(3), 89–102.

Bebchuk, L. A. and S. Hirst (2019). The specter of the giant three. Technical report, National Bureau of Economic Research.

Berle, A. and G. Means (1932). Private property and the modern corporation.

Bertrand, M., M. Bombardini, R. Fisman, B. Hackinen, and F. Trebbi (2021). Hall of mirrors: Corporate philanthropy and strategic advocacy. *The Quarterly Journal of Economics 136*(4), 2413–2465.

Bertrand, M., M. Bombardini, R. Fisman, and F. Trebbi (2020). Tax-exempt lobbying: Corporate philanthropy as a tool for political influence. *The American Economic Review 110*(7), 2065–2102.

Bertrand, M., M. Bombardini, and F. Trebbi (2014). Is it whom you know or what you know? an empirical assessment of the lobbying process. *The American Economic Review 104*(12), 3885–3920.

Boller, L. and F. S. Morton (2020). Testing the theory of common stock ownership. Technical report, National Bureau of Economic Research.

Bolton, P., T. Li, E. Ravina, and H. Rosenthal (2020). Investor ideology. *Journal of Financial Economics 137*(2), 320–352.

Bombardini, M. (2008). Firm heterogeneity and lobby participation. *Journal of International Economics 75*(2), 329–348.

Bombardini, M. and F. Trebbi (2011). Votes or money? theory and evidence from the us congress. *Journal of Public Economics 95*(7), 587–611.

Bombardini, M. and F. Trebbi (2012). Competition and political organization: Together or alone in lobbying for trade policy? *Journal of International Economics 87*(1), 18–26.

Bombardini, M. and F. Trebbi (2020). Empirical models of lobbying. *Annual Review of Economics 12*(1).

Bonica, A. (2016). Avenues of influence: On the political expenditures of corporations and their directors and executives. *Business and Politics 18*(4), 367–394.

Brav, A., W. Jiang, S. Ma, and X. Tian (2018). How does hedge fund activism reshape corporate innovation? *Journal of Financial Economics 130*(2), 237–264.

Brav, A., W. Jiang, F. Partnoy, and R. Thomas (2008). Hedge fund activism, corporate governance, and firm performance. *The Journal of Finance 63*(4), 1729–1775.

Brav, A., N. Malenko, and A. Malenko (2022). Corporate governance implications of the growth in indexing. Technical report, National Bureau of Economic Research.

Burris, V. (1987). The political partisanship of american business: A study of corporate political action committees. *American Sociological Review*, 732–744.

Bushee, B. J. (2001). Do institutional investors prefer near-term earnings over long-run value? *Contemporary Accounting Research 18*(2), 207–246.

Callaway, B. and P. H. Sant'Anna (2021). Difference-in-differences with multiple time periods. *Journal of Econometrics 225*(2), 200–230.

Calluzzo, P. and S. Kedia (2019). Mutual fund board connections and proxy voting. *Journal of Financial Economics 134*(3), 669–688.

Chang, Y.-C., H. Hong, and I. Liskovich (2015). Regression discontinuity and the price effects of stock market indexing. *The Review of Financial Studies 28*(1), 212–246.

Christoffersen, S. K., E. Danesh, and D. K. Musto (2015). Why do institutions delay reporting their shareholdings? evidence from form 13f. *Wharton Business School Working Paper*.

Coates, J. (2018). The future of corporate governance part i: the problem of twelve.

Coates, J. (2023). *The problem of twelve: When a few financial institutions control everything*. New York: Columbia Global Reports.

Colonnelli, E., V. P. Neto, and E. Teso (2022). Politics at work. Technical report, National Bureau of Economic Research.

Corum, A. A., A. Malenko, and N. Malenko (2021). Corporate governance in the presence of active and passive delegated investment. *European Corporate Governance Institute–Finance Working Paper 695*, 2020.

de Figueiredo, J. M. and B. K. Richter (2014). Advancing the empirical research on lobbying. *Annual Review of Political Science 17*, 163–185.

Drutman, L. (2015). *The business of America is lobbying: How corporations became politicized and politics became more corporate*. Oxford University Press.

Dyck, A., K. V. Lins, L. Roth, and H. F. Wagner (2019). Do institutional investors drive corporate social responsibility? international evidence. *Journal of Financial Economics 131*(3), 693–714.

Fos, V., E. Kempf, and M. Tsoutsoura (2022). The political polarization of corporate america. Technical report, National Bureau of Economic Research.

Fowler, A., H. Garro, and J. L. Spenkuch (2020). Quid pro quo? corporate returns to campaign contributions. *The Journal of Politics 82*(3), 000–000.

Gabaix, X., P. Gopikrishnan, V. Plerou, and H. E. Stanley (2006). Institutional investors and stock market volatility. *The Quarterly Journal of Economics 121*(2), 461–504.

Gompers, P. A. and A. Metrick (2001). Institutional investors and equity prices. *The Quarterly Journal of Economics 116*(1), 229–259.

Goodman-Bacon, A. (2021). Difference-in-differences with variation in treatment timing. *Journal of Econometrics 225*(2), 254–277.

Heath, D., D. Macciocchi, R. Michaely, and M. Ringgenberg (2022). Do index funds monitor? *The Review of Financial Studies 35*(1), 91–131.

Kang, K. (2016). Policy influence and private returns from lobbying in the energy sector. *Review of Economic Studies 83*(1), 269–305.

Kempf, E., M. Luo, L. Schäfer, and M. Tsoutsoura (2023). Political ideology and international capital allocation. *Journal of Financial Economics 148*(2), 150–173.

Kerr, W. R., W. F. Lincoln, and P. Mishra (2014). The dynamics of firm lobbying. *American Economic Journal: Economic Policy 6*(4), 343–379.

Lewellen, J. and K. Lewellen (2022). Institutional investors and corporate governance: The incentive to be engaged. *The Journal of Finance 77*(1), 213–264.

López, A. L. and X. Vives (2019). Overlapping ownership, r&d spillovers, and antitrust policy. *Journal of Political Economy 127*(5), 2394–2437.

Masters, M. F. and G. D. Keim (1985). Determinants of pac participation among large corporations. *The Journal of Politics 47*(4), 1158–1173.

McCahery, J. A., Z. Sautner, and L. T. Starks (2016). Behind the scenes: The corporate governance preferences of institutional investors. *The Journal of Finance 71*(6), 2905–2932.

Pavlova, A. and T. Sikorskaya (2023). Benchmarking intensity. *The Review of Financial Studies 36*(3), 859–903.

Posner, E. A., F. M. Scott Morton, and E. G. Weyl (2017). A proposal to limit the anti-competitive power of institutional investors. *Antitrust Law Journal*.

Richter, B. K. and T. Werner (2017). Campaign contributions from corporate executives in lieu of political action committees. *The Journal of Law, Economics, and Organization 33*(3), 443–474.

Rios-Avila, F., B. Callaway, and P. H. Sant'Anna (2021). csdid: Difference-in-differences with multiple time periods in stata. In *Stata Conference*, pp. 47.

Sant'Anna, P. H. and J. Zhao (2020). Doubly robust difference-in-differences estimators. *Journal of Econometrics 219*(1), 101–122.

Schmalz, M. C. (2018). Common-ownership concentration and corporate conduct. *Annual Review of Financial Economics 10*, 413–448.

Snyder Jr, J. M. (1990). Campaign contributions as investments: The us house of representatives, 1980-1986. *Journal of Political Economy 98*(6), 1195–1227.

Stewart III, C. and T. Groseclose (1999). The value of committee seats in the united states senate, 1947-91. *American Journal of Political Science*, 963–973.

Stratmann, T. (2005). Some talk: Money in politics. a (partial) review of the literature. *Public Choice 124*, 135–156.

Sun, L. and S. Abraham (2021). Estimating dynamic treatment effects in event studies with heterogeneous treatment effects. *Journal of Econometrics 225*(2), 175–199.

Tahoun, A., L. van Lent, and M. Zhu (2023). Biased executives. *London Business School Working Paper*.

Teso, E. (2022). Influence-seeking in us corporate elites' campaign contribution behavior. *The Review of Economics and Statistics*, 1–34.

Thieme, S. (2020). Moderation or strategy? political giving by corporations and trade groups. *The Journal of Politics 82*(3), 1171–1175.

Tripathi, M., S. Ansolabehere, and J. M. Snyder (2002). Are pac contributions and lobbying linked? new evidence from the 1995 lobby disclosure act. *Business and Politics 4*(2), 131–155.

Walker, E. T. and C. M. Rea (2014). The political mobilization of firms and industries. *Annual Review of Sociology 40*, 281–304.

Yegen, E. (2019). Common-ownership and portfolio rebalancing. *Rotman School of Management Working Paper*.

Figure 1: Firm and investor PAC giving: Event study

This figure represents how the association between firm and investor PAC giving changes during election cycles around the acquisition. Specifically, it plots the estimated coefficients β_s in regression Equation (4): $Log\left(1+Firm\,PAC_{f,t,c}\right)=\sum_{s=-3}^{5}\beta_s Log\left(1+Investor\,PAC_{i,t,c}\right)\times Cycle\_s_{i,f,t}+\Omega_{i,f,c,t}+\epsilon_{i,f,c,t}$ where $Cycle\_s_{i,f,t}=\mathbb{1}\left(t-a\left(i,f\right)=s\right)$ is an indicator function that marks the s^{th} cycle after (or before) acquisition cycle $a\left(i,f\right)$ and $s\in\{-3,-2,0,...,5\}$ and $\Omega_{i,f,c,t}$ is the set of fixed effects in column 8 of Table 1 (firm × investor, firm × congressional cycle, firm × congressional district, investor × congressional cycle, investor × congressional district, and congressional district × congressional cycle fixed effects). The same exercise is done using only the index induced acquisitions. We normalize $\beta_0=0$. Standard errors (in parenthesis) are clustered at the firm×investor level.

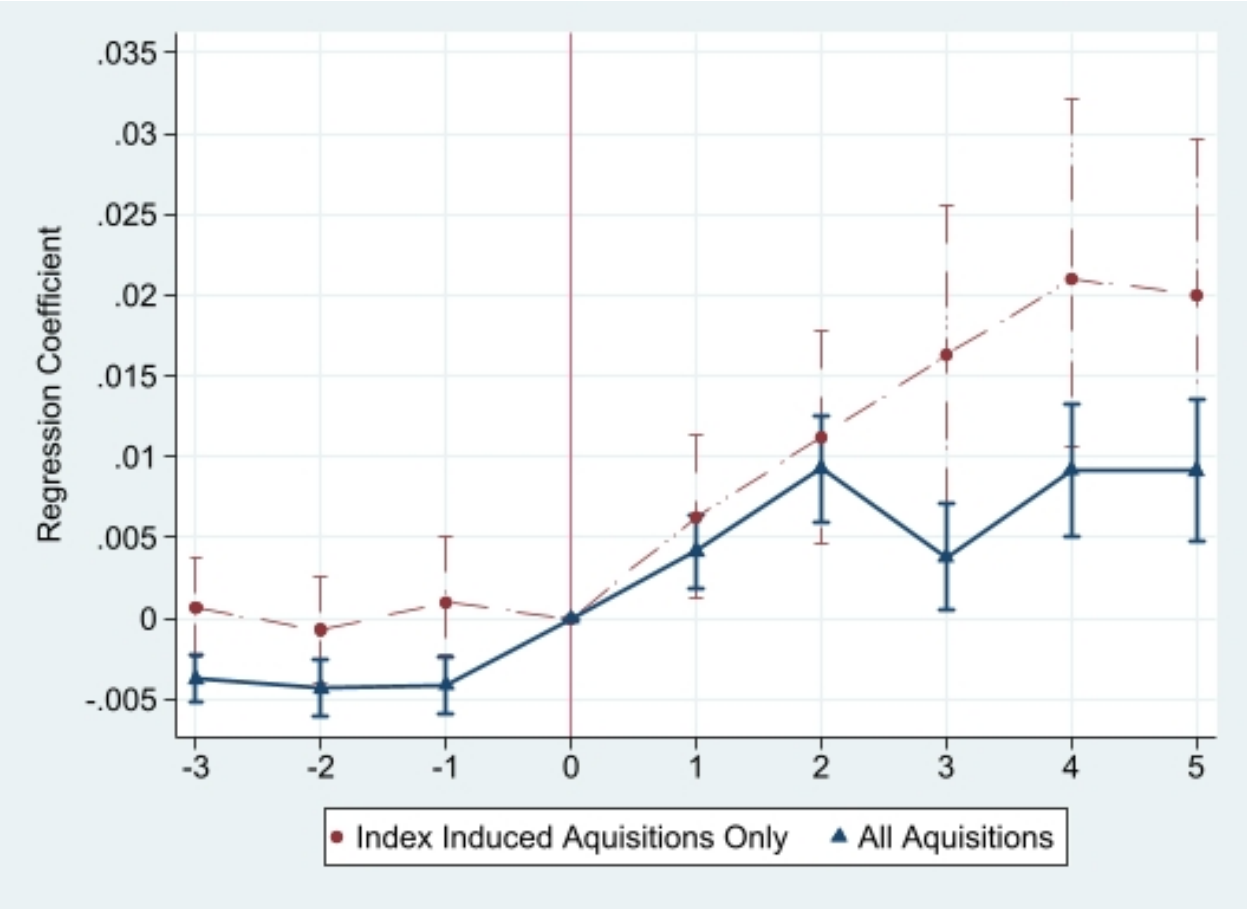

Figure 2: Firm and investor PAC giving: Divestment event study

This figure represents how the association between firm and investor PAC giving changes during election cycles around a divestment. Specifically, it plots the estimated coefficients β_s in regression Equation (4): $Log\left(1+Firm\,PAC_{f,t,c}\right)=\sum_{s=-3}^{5}\beta_s Log\left(1+Investor\,PAC_{i,t,c}\right)\times Cycle\_s_{i,f,t}+\Omega_{i,f,c,t}+\epsilon_{i,f,c,t}$ where $Cycle\_s_{i,f,t}=\mathbb{1}\left(t-a\left(i,f\right)=s\right)$ is an indicator function that marks the s^{th} cycle after (or before) divestment cycle $a\left(i,f\right)$ and $s\in\{-3,-2,0,...,5\}$ and $\Omega_{i,f,c,t}$ is the set of fixed effects in column 8 of Table 1 (firm × investor, firm × congressional cycle, firm × congressional district, investor × congressional cycle, investor × congressional district, and congressional district × congressional cycle fixed effects). The same exercise is done using only the index induced acquisitions. We normalize $\beta_0=0$. Standard errors are clustered at the firm×investor level.

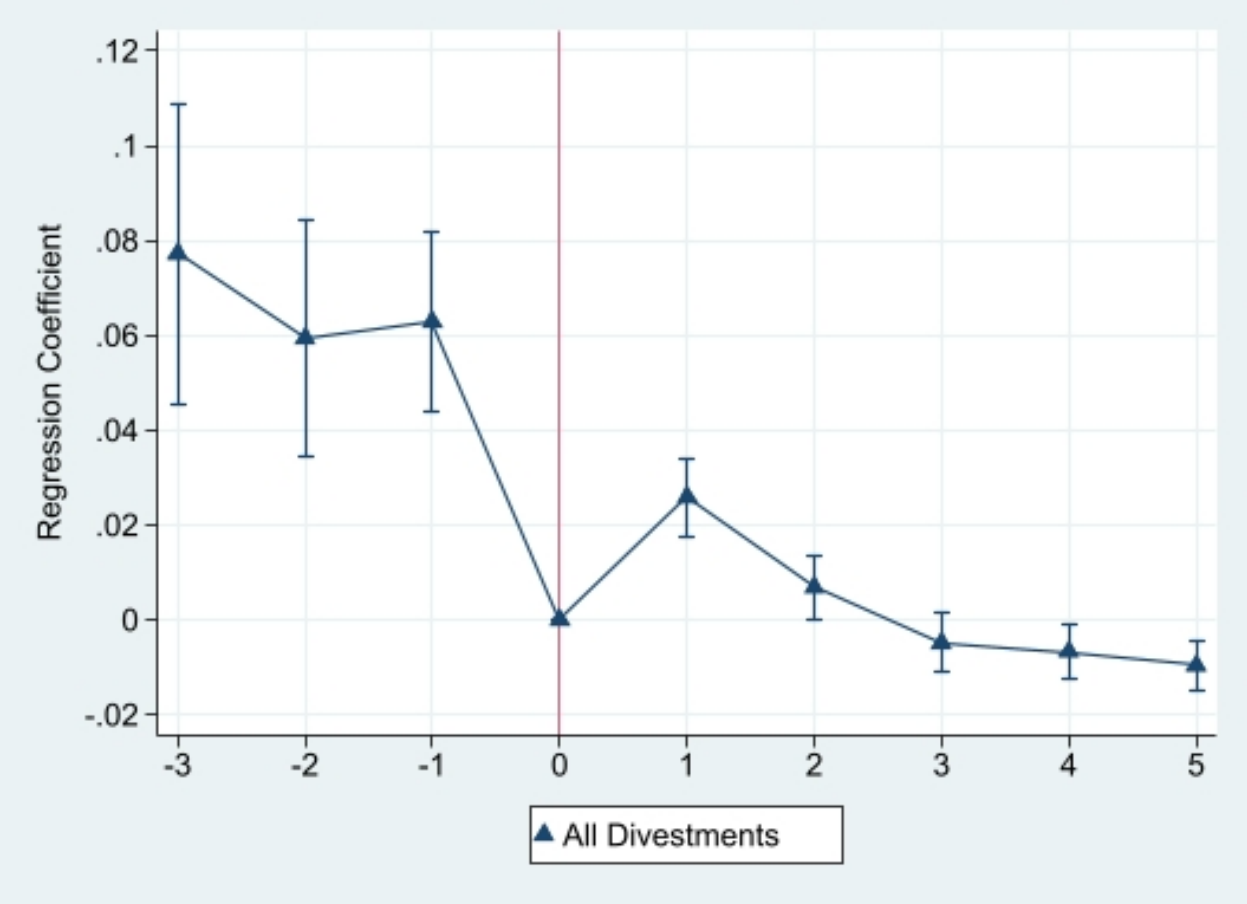

Figure 3: Coefficient estimate of cosine similarity between firm and investor PAC giving using an event study approach

This figure represents how the association between firm and investor PAC giving changes during election cycles around the acquisition. Specifically, it plots the estimated coefficients δ_s in the regression equation: $Cos(x_{i,t}, x_{f,t}) = \sum_{s=-3}^{5} \delta_s Cycle\_s_{i,f,t} + \upsilon_i + \omega_f + \phi_t + \epsilon_{i,f,t}$ where $Cycle\_s_{i,f,t} = \mathbb{1}(t - a(i,f) = s)$ is an indicator function that marks the s^{th} cycle after (or before) acquisition cycle $a(i,f)$ and $s \in \{-3, -2, 0, ..., 5\}$ and υ_i, ω_f and ϕ_t represent investor, firm and cycle fixed effects. The same exercise is done using only the index induced acquisitions. We normalize $\delta_0 = 0$. Standard errors are clustered at the firm and investor levels.

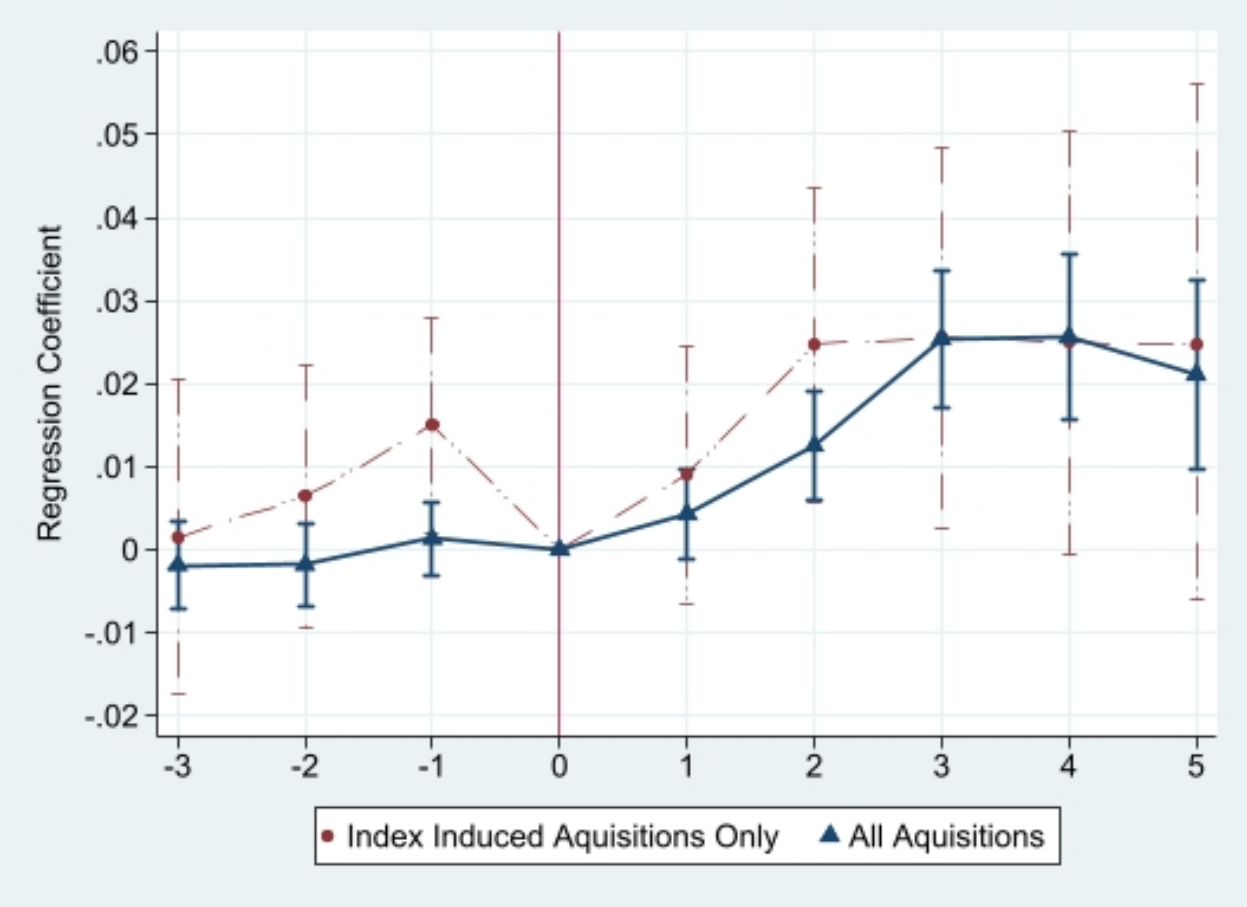

Table 1: Firms' and investors' PAC contributions

This table presents the association between the PAC contributions by firms and their investors' PAC contributions at the congressional cycle − district level during the cycles around a large stock acquisition. The data are, therefore, at the investor − firm − congressional cycle − district level. 𝟙(Post) denotes observations that occur after the acquisition has occurred. The dependent variable is the logarithmic transformation of one plus the total dollar amount of PAC contributions the given firm gave to the incumbent in a given district during a given cycle, whereas the independent variable is the logarithmic transformation of one plus the total dollar amount of PAC contributions the given investor gave to the same politician during the same congressional cycle. The mean of the dependent variable is 0.076. Standard errors are clustered at the firm×investor level.

Depend. Var.: **Log(1+Firm PAC)**								
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**
Log(1+Investor PAC)×𝟙(Post)	0.0303***	0.0310***	0.0318***	0.0264***	0.0284***	0.0320***	0.0162***	0.0135***
	(0.00155)	(0.00158)	(0.00129)	(0.00144)	(0.00149)	(0.00157)	(0.00149)	(0.00120)
Log(1+Investor PAC)	0.0565***	0.0567***	0.0440***	0.0541***	0.0600***	0.0586***	0.0444***	0.0435***
	(0.00128)	(0.00129)	(0.000946)	(0.00121)	(0.00126)	(0.00130)	(0.00126)	(0.00118)
𝟙(Post)	-0.001***	-0.002***	-0.001**	-0.004***	-0.001***	-0.002***	0.0007*	-0.001***
	(0.000410)	(0.000450)	(0.000394)	(0.000187)	(0.000405)	(0.000461)	(0.000401)	(0.000130)
Fixed Effects								
Firm	X				X	X	X	
Investor	X		X	X			X	
Congressional Cycle	X	X	X		X			
Congressional District	X	X		X		X		
Firm × Investor		X						X
Firm × Congressional District			X					X
Firm × Congressional Cycle				X				X
Investor × Congressional District					X			X
Investor × Congressional Cycle						X		X
Congressional Cycle × District							X	X
N	339,785,165	339,785,165	339,779,962	339,785,165	339,769,326	339,785,165	339,785,165	339,764,091
R^2	0.026	0.026	0.113	0.032	0.031	0.026	0.041	0.135

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table 2: Firms' and passive investors' PAC contributions − Index inclusion sample

This table presents the association between the PAC contributions by firms and their investors' PAC contributions at the congressional cycle − district level during the cycles around large stock acquisitions due to index inclusion by investors with a passive investment trading strategy. The data are, therefore, at the investor − firm − congressional cycle − district level. 𝟙(Post) denotes observations that occur after the acquisition has occurred. The outcome variable is the logarithmic transformation of one plus the total dollar amount of PAC contributions from a given firm to the incumbent in a given district in a given election cycle; *Log(1+Investor PAC)* is similarly defined. The mean of the outcome variable is 0.085. Standard errors (in parenthesis) are clustered at the firm×investor level.

Depend. Var.: **Log(1+Firm PAC)**								
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**
Log(1+Investor PAC)×𝟙(Post)	0.0404***	0.0410***	0.0409***	0.0373***	0.0376***	0.0419***	0.0161***	0.0131***
	(0.00357)	(0.00360)	(0.00300)	(0.00332)	(0.00342)	(0.00363)	(0.00335)	(0.00275)
Log(1+Investor PAC)	0.0489***	0.0489***	0.0419***	0.0468***	0.0539***	0.0507***	0.0334***	0.0333***
	(0.00269)	(0.00270)	(0.00204)	(0.00247)	(0.00257)	(0.00267)	(0.00263)	(0.00231)
𝟙(Post)	-0.005***	-0.006***	-0.005***	-0.006***	-0.005***	-0.009***	-0.002	-0.001***
	(0.00167)	(0.00176)	(0.00164)	(0.000530)	(0.00166)	(0.00188)	(0.00165)	(0.000359)
Fixed Effects								
Firm	X				X	X	X	
Investor	X		X	X			X	
Congressional Cycle	X	X	X		X			
Congressional District	X	X		X		X		
Firm × Investor		X						X
Firm × Congressional District			X					X
Firm × Congressional Cycle				X				X
Investor × Congressional District					X			X
Investor × Congressional Cycle						X		X
Congressional Cycle × District							X	X
N	38,356,758	38,356,758	38,356,442	38,356,758	38,356,169	38,356,758	38,356,758	38,355,867
R^2	0.029	0.029	0.101	0.037	0.037	0.030	0.050	0.129

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table 3: Firms' and investors' PAC contributions − Divestments

This table presents the association between the PAC contributions by firms and their investors' PAC contributions at the congressional cycle − district level during the cycles around a large stock divestment. The data are, therefore, at the investor − firm − congressional cycle − district level. 𝟙(Post) denotes observations that occur after the divestment has occurred. The dependent variable is the logarithmic transformation of one plus the total dollar amount of PAC contributions from a given firm to the incumbent in a given district in a given election cycle; *Log(1+Investor PAC)* is similarly defined. The mean of the dependent variable is 0.121. Standard errors (in parenthesis) are clustered at the firm×investor level levels.

Depend. Var.: **Log(1+Firm PAC)**								
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**
Log(1+Investor PAC) × 𝟙(Post)	-0.072***	-0.074***	-0.074***	-0.059***	-0.070***	-0.072***	-0.071***	-0.063***
	(0.00751)	(0.00761)	(0.00678)	(0.00689)	(0.00742)	(0.00769)	(0.00743)	(0.00635)
Log(1+Investor PAC)	0.214***	0.216***	0.187***	0.196***	0.219***	0.215***	0.193***	0.183***
	(0.00771)	(0.00779)	(0.00689)	(0.00716)	(0.00761)	(0.00787)	(0.00761)	(0.00679)
𝟙(Post)	0.0213***	0.0236***	0.0214***	0.0146***	0.0208***	0.0128***	0.0210***	0.0148***
	(0.00215)	(0.00235)	(0.00204)	(0.00156)	(0.00214)	(0.00244)	(0.00214)	(0.00149)
Fixed Effects								
Firm	X				X	X	X	
Investor	X		X	X			X	
Congressional Cycle	X	X	X		X			
Congressional District	X	X		X		X		
Firm × Investor		X						X
Firm × Congressional District			X					X
Firm × Congressional Cycle				X				X
Investor × Congressional District					X			X
Investor × Congressional Cycle						X		X
Congressional Cycle × District							X	X
N	104,258,141	104,258,141	104,249,778	104,258,141	104,232,606	104,258,141	104,258,141	104,225,090
R^2	0.056	0.057	0.165	0.067	0.068	0.057	0.071	0.195

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table 4: Persistence of firm and investor giving patterns − Cosine similarity analysis

This table provides the difference in means of the cosine similarity scores between cycles t and $t+1$ for firms and for investors. In particular, this test examines whether there is a difference in the cosine similarity scores between the firm's PAC giving during two consecutive cycles (i.e., $Cos[x_{f,t}, x_{f,t+1}]$) and the cosine similarity scores between the investor's PAC giving during two consecutive cycles (i.e., $Cos[x_{i,t}, x_{i,t+1}]$]). The j term in the $Cos[x_{j,t}, x_{j,t+1}]$ expression, therefore, is either equal to f or i. It is also important to note that the firm adapts more than the investor if, on average, $Cos[x_{i,t}, x_{i,t+1}] > Cos[x_{f,t}, x_{f,t+1}]$. As well, the term *Difference in means* is defined as the difference between the means of the given two cosine similarity scores of the firm and the investor (e.g., $Cos[x_{j,t}, x_{j,t+1}] - Cos[x_{j,t-1}, x_{j,t}]$). Rows three and four use an alternative definition of cosine similarity. Rather than comparing the two adjacent cycles, the last two rows compare giving similarity across two-cycle periods. Standard errors are provided in parentheses.

	Investors	Firms	Difference in means	P-value of Difference	N
$Cos[x_{j,t},\ x_{j,t+1}]$	0.616	0.183	0.434***	0.000	18,612
	(0.00138)	(0.00135)	(0.00193)		
$Cos[x_{j,t},\ x_{j,t+1}] - Cos[x_{j,t-1},\ x_{j,t}]$	0.003	−0.072	0.075***	0.000	15,107
	(0.00169)	(0.00177)	(0.00243)		
$Cos[x_{j,t},\ x_{j,t+2}]$	0.521	0.187	0.334***	0.000	13,479
	(0.00156)	(0.00159)	(0.00223)		
$Cos[x_{j,t},\ x_{j,t+2}] - Cos[x_{j,t-2},\ x_{j,t}]$	−0.002	−0.085	0.083***	0.000	10,670
	(0.00198)	(0.00212)	(0.00288)		

Table 5: Firms' and investors' PAC contributions − Shareholder proposals and ESG incidents

This table presents the association between the PAC contributions by firms and their investors' PAC contributions at the congressional cycle − district level during the cycles around a large stock acquisition. The data are, therefore, at the investor − firm − congressional cycle − district level. 𝟙(Post) denotes observations that occur after the acquisition has occurred. The dependent variable is the logarithmic transformation of one plus the total dollar amount of PAC contributions the given firm gave to the incumbent in a given district during a given cycle, whereas the independent variable is the logarithmic transformation of one plus the total dollar amount of PAC contributions the given investor gave to the same politician during the same congressional cycle. 𝟙(Vote) takes the value of one if there is a vote on at least one shareholder proposal in a given two-year election-cycle period, zero otherwise. 𝟙(ESG) takes the value of one when the firm has at least one controversial ESG incident that is classified by RepRisk as highly severe, highly visible, and novel (i.e., new incident to the firm and given location), zero otherwise. The mean of the dependent variable is 0.109. Standard errors are clustered at the firm×investor level.

Depend. Var.: **Log (1+Firm PAC)**				
	(1)	**(2)**	**(3)**	**(4)**
	Event=Vote	**Event=Vote**	**Event=ESG**	**Event=ESG**
Log(1+PAC$_I$)×𝟙(Post)×𝟙(Event)	0.0268***	0.0176***	0.0260***	0.0181***
	(0.00548)	(0.00351)	(0.00796)	(0.00487)
Log(1+PAC$_I$)×𝟙(Post)	0.0175***	0.00618***	0.0130***	0.00178
	(0.00243)	(0.00158)	(0.00196)	(0.00132)
𝟙(Post)×𝟙(Event)	-0.0006	-0.003***	0.00911***	-0.002***
	(0.00145)	(0.000360)	(0.00156)	(0.000273)
Log(1+PAC$_I$)×𝟙(Event)	0.0271***	0.0164***	0.0358***	0.0208***
	(0.00423)	(0.00238)	(0.00798)	(0.00487)
𝟙(Event)	-0.005***	-	-0.014***	-
	(0.00105)	-	(0.00156)	-
Log(1+PAC$_I$)	0.0393***	0.0332***	0.0467***	0.0419***
	(0.00225)	(0.00166)	(0.00176)	(0.00149)
𝟙(Post)	0.000417	0.000348**	-0.002***	0.0004***
	(0.000629)	(0.000140)	(0.000579)	(0.000127)
Fixed Effects				
Firm	X		X	
Investor	X		X	
Congressional Cycle	X		X	
Congressional District	X		X	
Firm × Investor		X		X
Firm × Congressional District		X		X
Firm × Congressional Cycle		X		X
Investor × Congressional District		X		X
Investor × Congressional Cycle		X		X
Congressional Cycle × District		X		X
N	42,021,623	41,958,893	41,663,994	41,599,866
R^2	0.049	0.273	0.058	0.300

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table 6: Total institutional ownership and political giving by firms

This table presents the association between the total PAC contributions by firms and total institutional ownership. The outcome variable of columns 1 to 3 is the logarithmic transformation of one plus total PAC giving by a firm, whereas in columns 4 to 6 is the logarithmic transformation of one plus total PAC giving by a firm to politicians who sit on relevant committees as defined in the paper. The outcome variable in columns 7 to 9 is defined as the ratio of relevant committee giving by firms over total firm giving. The variable, *Total Inst. Ownership*, is the average total institutional ownership of a firm during a given political election cycle. The mean of the outcome variable in columns 1 to 3 is 7.012, whereas in columns 4 to 6 is 4.60, and in columns 7 to 9 is 0.215.

	Log(1+Total Giving)			Log(1+Relevant Giving)			Relevant Giving Ratio		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Total Inst. Own.	1.182**	6.469***	7.199***	-0.979*	-1.042**	-1.198*	-0.914*	-0.640*	-1.066**
	(0.611)	(0.778)	(0.946)	(0.553)	(0.476)	(0.723)	(0.518)	(0.354)	(0.462)
Fixed Effects									
Firm	X			X			X		
Cycle	X	X		X	X		X	X	
Industry		X			X			X	
Industry × Cycle			X			X			X
N	15,688	13,104	11,496	2,577	2,417	1,462	2,495	2,339	1,398
R^2	0.592	0.141	0.244	0.581	0.318	0.434	0.320	0.185	0.370

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table 7: Firms' and investors' PAC contributions − Investor Types

This table presents the association between the PAC contributions by firms and their investors' PAC contributions at the congressional cycle − district level during the cycles around a large stock acquisition using a variety of ownership breakdowns. The data are, therefore, at the investor − firm − congressional cycle − district level. Columns 1 and 2 break down the sample by funds that are privately owned versus publicly owned, respectively. Columns 3 and 4 split active investors by above versus below median skew where skew is defined as the absolute value of Republican giving share minus 0.5. 𝟙(Post) denotes observations that occur after the acquisition has occurred. The dependent variable is the logarithmic transformation of one plus the total dollar amount of PAC contributions the given firm gave to the incumbent in a given district during a given cycle, whereas the independent variable is the logarithmic transformation of one plus the total dollar amount of PAC contributions the given investor gave to the same politician during the same congressional cycle. The mean of the dependent variable of columns 1, 2, 3, and 4 are 0.069, 0.071, 0.085, and 0.131, respectively. Standard errors (in parenthesis) are clustered at the firm×investor level.

Depend. Var.: **Log(1+Firm PAC)**				
	(1)	**(2)**	**(3)**	**(4)**
	Private Funds	*Public Funds*	*More Partisan*	*Less Partisan*
Log(1+Investor PAC) × 𝟙(Post)	0.022***	0.008***	0.020***	0.010***
	(0.00268)	(0.00136)	(0.00463)	(0.00122)
Log(1+Investor PAC)	0.0387***	0.0407***	0.039***	0.036***
	(0.00274)	(0.00122)	(0.00681)	(0.00104)
𝟙(Post)	-0.001***	-0.002***	-0.009***	-0.009***
	(0.0001)	(0.0004)	(0.0023)	(0.00114)
Fixed Effects				
Firm × Investor	X	X	X	X
Firm × Congressional District	X	X	X	X
Firm × Congressional Cycle	X	X	X	X
Investor × Congressional District	X	X	X	X
Investor × Congressional Cycle	X	X	X	X
Congressional Cycle × District	X	X	X	X
N	267,366,099	72,387,795	8,848,871	28,730,108
R^2	0.128	0.154	0.193	0.178

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table 8: Firms' PAC giving and institutional investors' employee giving

This table presents the association between the PAC contributions by firms and their investors' employee contributions at the congressional cycle − district level during the cycles around a large stock acquisition, starting from 1990. The data are, therefore, at the investor − firm − congressional cycle − district level. 𝟙(Post) denotes observations that occur after the acquisition has occurred. The dependent variable is the logarithmic transformation of one plus the total dollar amount of PAC contributions the given firm gave to the incumbent in a given district during a given cycle, whereas the independent variable is the logarithmic transformation of one plus the total dollar amount of individual contributions the given investor's employees gave to the same politician during the same congressional cycle. The mean of the dependent variable is 0.086. Standard errors are clustered at the firm×investor level.

Depend. Var.: **Log (1+ Firm PAC)**								
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**
Log(1+Indv. Giving) × 𝟙(Post)	0.00722***	0.00812***	0.00653***	0.00524***	0.00660***	0.00906***	0.00453***	0.00338***
	(0.000753)	(0.000773)	(0.000650)	(0.000692)	(0.000724)	(0.000813)	(0.000726)	(0.000573)
Log(1+Inv PAC) × 𝟙(Post)	0.0242***	0.0250***	0.0291***	0.0213***	0.0253***	0.0249***	0.0148***	0.0123***
	(0.00161)	(0.00165)	(0.00129)	(0.00150)	(0.00157)	(0.00163)	(0.00157)	(0.00123)
Log(1+Inv PAC)	0.0495***	0.0496***	0.0407***	0.0474***	0.0593***	0.0510***	0.0433***	0.0424***
	(0.00133)	(0.00135)	(0.000940)	(0.00127)	(0.00132)	(0.00136)	(0.00132)	(0.00122)
Log(1+Indv. Giving)	0.0065***	0.0061***	0.0072***	0.0075***	0.0104***	0.0065***	0.0033***	0.0022***
	(0.000354)	(0.000356)	(0.000253)	(0.000348)	(0.000317)	(0.000412)	(0.000351)	(0.000283)
𝟙(Post)	-0.002***	-0.002***	-0.002***	-0.004***	-0.002***	-0.002***	-0.0001	-0.001***
	(0.000414)	(0.000472)	(0.000401)	(0.000191)	(0.000412)	(0.000448)	(0.000407)	(0.000145)
Fixed Effects								
Firm	X				X	X	X	
Investor	X		X	X			X	
Congr Cycle	X	X	X		X			
Congr District	X	X		X		X		
Firm × Investor		X						X
Firm × Congressional District			X					X
Firm × Congressional Cycle				X				X
Investor × Congressional District					X			X
Investor × Congressional Cycle						X		X
Congressional Cycle × District							X	X
N	227,575,634	227,575,634	227,569,901	227,575,634	227,538,200	227,575,634	227,575,634	227,532,378
R^2	0.034	0.035	0.139	0.041	0.035	0.035	0.044	0.161
β_1/β_4 (Investor Employee Giving)	1.11	1.32	0.91	0.70	0.63	1.37	1.36	1.48
β_2/β_3 (Investor PAC Giving)	0.49	0.50	0.71	0.45	0.43	0.49	0.34	0.29

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table 9: Firms' and investors' PAC contributions − Board of directors connection

This table presents the association between the PAC contributions by firms and their investors' PAC contributions at the congressional cycle − district level during cycles around an establishment of a board of directors connection. The data are, therefore, at the investor − firm − congressional cycle − district level. 𝟙(Board) denotes observations that occur after the board connection is established (an employee working for the given institutional investor has a seat on the board). The dependent variable is the logarithmic transformation of one plus the total dollar amount of PAC contributions the given firm gave to the incumbent in a given district during a given cycle, whereas the independent variable is the logarithmic transformation of one plus the total dollar amount of PAC contributions the given investor gave to the same politician during the same congressional cycle. The mean of the dependent variable is 0.075. Standard errors (in parentheses) are clustered at the firm×investor level.

Depend. Var.: **Log(1+Firm PAC)**						
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
Log(1+Investor PAC) × 𝟙(Board) × 𝟙(Post)	0.033***	0.040***	0.023***	0.028***	0.033***	0.028***
	(0.00980)	(0.01165)	(0.00694)	(0.00891)	(0.00972)	(0.00733)
Log(1+Investor PAC) × 𝟙(Post)	0.026***	0.026***	0.032***	0.022***	0.028***	0.013***
	(0.00151)	(0.00154)	(0.00127)	(0.00139)	(0.00148)	(0.00119)
Log(1+Investor PAC)	0.050***	0.049***	0.043***	0.048***	0.058***	0.042***
	(0.00123)	(0.00125)	(0.00093)	(0.00117)	(0.00122)	(0.00115)
𝟙(Board)	-0.013***		-0.009***	-0.011***	-0.013***	
	(0.00393)		(0.00282)	(0.00356)	(0.003914)	
𝟙(Post)	-0.001**	-0.002***	-0.001***	-0.004***	-0.001***	-0.001***
	(0.0004)	(0.0004)	(0.0003)	(0.0002)	(0.0004)	(0.0001)
Fixed Effects						
Firm	X				X	
Investor	X		X	X		
Congressional Cycle	X	X	X		X	
Congressional District	X	X		X		
Congressional Cycle × District						X
Firm × Investor		X				X
Firm × Congressional District			X			X
Firm × Congressional Cycle				X		X
Investor × Congressional District					X	X
Investor × Congressional Cycle						X
N	339,785,165	339,785,165	339,779,962	339,785,165	339,769,326	339,764,091
R^2	0.031	0.032	0.113	0.038	0.031	0.135

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Online Appendix to

"Investing in Influence: Investors, portfolio firms, and political giving"

Marianne Bertrand, Matilde Bombardini, Raymond Fisman, Francesco Trebbi and Eyub Yegen

- Not for Publication -

A Online Appendix

A.1 Data visualization

To illustrate the definition of our event variable and the structure of our data, we provide a visualization of the variable *Post* for acquisitions (Figure A.1) and divestments (Figure A.2), for a single institutional investor. We use the Capital Group and all firms that appear in its portfolio at any point during the sample. We selected this specific investor because it had sufficient acquisitions so as to provide a clear sense of how the dataset is constructed, but not so many as, e.g., BlackRock, as to create an impossibly large image. The images are created using the panelview command in Stata. Each line is a firm with years on the horizontal axis. For the acquisition sample, the color is a darker shade when $Post = 1$, a lighter shade when $Post = 0$, and uncolored when the observation is missing, because the investor completely divested from that firm. We reiterate that inclusion in the sample requires that the investor had a zero stake, which was increased to an ownership stake of at least one percent, in a single quarter. The transition from $Post = 0$ to $Post = 1$ occurs in the election cycle when this stake is purchased. For the divestment sample, the line is shaded darker after a divestment has occurred ($Post = 1$), lighter before ($Post = 0$), and uncolored when the observation is missing (because the investor had not yet invested in that firm). To be included in the divestment sample, the investor must hold at least a one percent ownership share of the firm, and divest it completely, in a single quarter. The transition from $Post = 0$ to $Post = 1$ occurs when this divestment takes place.

A.2 Regressions with weighted sum of investor giving

As a robustness check, we consider *all* holdings to examine whether a firm's PAC giving is related to the overall PAC giving of its full set of investors. This requires the weighted PAC giving of investors (to put more weight on PAC giving by investors with higher ownership stakes). To generate this weighted average PAC variable, we first identify the average ownership percentage of each investor i in a firm f during cycle t, and multiply the ownership percentage by the PAC giving by the i to the legislator representing congressional district c, i.e., the PAC contributions by each investor to a given politician are weighted by the investor's ownership of the firm. To construct the weighted PAC contributions, at the firm-cycle-politician level, we then sum across all investors' weighted PAC giving with a stake in the firm to obtain a single (weighted) PAC contribution figure, $Weighted\ sum\ of\ investor\ giving$. To illustrate, consider the following hypothetical example. Suppose that 45 percent of Apple's outstanding shares are held by Investor 1 and 5 percent by Investor 2; the remaining 50 percent of shares are not owned by a 13-F investor. For simplicity, assume these shares are held throughout the entire election cycle (i.e. portfolio never

changes during the eight 13-F quarters). Then, Investor 1's (2's) contribution to the politician in congressional district c will get a 45 percent (5 percent) weight when calculating Apple's weighted investor PAC contributions to c. Suppose that Investor 1 (2) gave \$1,000 (\$2,000) to c. For this particular election cycle, Apple's weighted investor PAC contribution to c will be \$550 (i.e., \$450 + \$100), placing more weight on the investor with a higher ownership stake.

In all specifications of Appendix Table A.8, we find a positive association between investor and firm PAC giving.

A.3 Regressions separating active and passive investors

In order to distinguish whether the main effect we estimate is coming from passive or active investors, we split specification (2) into active and passive investor PAC contributions as follows:

$$\begin{aligned} logFirmPAC_{f,t,c} &= \beta_A log\left(1 + \sum_{i \in Active} share_{i,f,t} PAC_{i,t,c}\right) \\ &+ \beta_P log\left(1 + \sum_{i \in Passive} share_{i,f,t} PAC_{i,t,c}\right) \end{aligned} \tag{A.1}$$

Results appear in Appendix Table A.17 and are discussed in the main text.

A.4 Additional shifts in political activity: Lobbying

Firms have multiple ways of exerting political influence. In fact, lobbying expenditures are an order of magnitude larger than the campaign expenditures that we have focused on thus far (Bertrand et al., 2014). In this section we investigate whether we can detect a convergence in lobbying expenditures. The Lobby Disclosure Act (LDA) of 1995, amended subsequently by the Honest Leadership and Open Government Act of 2007, required that firms report, among other details, the amount paid to a lobbyist per filing period and the issues (out of a list of 79) that lobbying efforts are focused on. Lobbying issues range from Chemicals/Chemical Industry (CHM) and Family Issues/Abortion (FAM) to Insurance (INS) and Housing (HOU). The LDA and its modifications have never required firms to report the specific individual contacted by the lobbyist hence we cannot study convergence in lobbying targets, but only in lobbying issues. The specification for

this exercise mirrors that of Equation (1):

$$\begin{aligned} log\left(FirmLobbying_{f,r,t}+1\right) &= \alpha_1 log\left(InvestorLobbying_{i,r,t}+1\right)\times Post_{i,f,t} \\ &+\alpha_2 log\left(InvestorLobbying_{i,r,t}+1\right)+\alpha_3 Post_{i,f,t}+ \\ &+\upsilon_i+\omega_f+\gamma_c+\phi_t+\epsilon_{i,f,c,t} \end{aligned}$$

where $FirmLobbying_{f,r,t}$ is lobbying expenditures on issue r by firm f in congressional cycle t and $InvestorLobbying_{i,r,t}$ is similarly defined for investor i. The results for this exercise are reported in Appendix Table A.10, based on specifications that parallel those of our main analyses in Table 1, but replacing the congressional district dimension with the issue dimension. We find results that are similar to those we found for campaign giving: After an acquisition, firms and investors tend to lobby on more similar topics than prior to the acquisition.

A.5 Discussion of staggered difference-in-differences

In this section, we assess the extent to which our two-way fixed-effects model is contaminated by "bad comparisons." We begin by noting that we face a practical difficulty in implementing current methods and associated off-the-shelf statistical packages because of the very large sample sizes in many of our analyses. As a result, we could not get these statistical packages to run the analyses we perform at the portfolio firm × investor × congressional district × congressional cycle level.

We are, however, able to implement these approaches for our cosine similarity analysis (Table 4) where the unit of analysis is at the portfolio firm × investor × congressional cycle level and the sample size is thus much more manageable. Appendix Table A.19 follows Sant'Anna and Zhao (2020) and Rios-Avila et al. (2021) (we used the Stata package csdid), where we observe that the average treatment effect we estimate using this method is very similar to that of Table 4 in the main text. Table A.19 also shows the average treatment effect by group (i.e., acquisition time), which is positive in all groups and significantly so in all but 3 cases.

While we cannot implement standard approaches for our analysis at the portfolio firm × investor × congressional district × congressional cycle level, we report a series of robustness tests inspired by this new econometric literature that are meant to address the bad comparisons problem in a staggered difference-in-difference design.

Given our sample construction, it is worth emphasizing that all observations are treated at some point in the sample period, so we do not have any never-treated observations. In such cases, following on the insights of Callaway and Sant'Anna (2021) and Sun and Abraham (2021), only not-yet-treated or last-treated observations should be used as controls to avoid "bad comparisons."

In this spirit, we report in Appendix Tables A.20 and A.21 estimates of the coefficient of

interest on $log(1 + InvPAC) * I(Post)$ separately by acquisition time, for the full sample and the index subsample respectively. Each number in each table corresponds to the output of a different regression. Key to each regression is that the control group only consists of not-yet-treated observations, which we choose to be observations that will be treated after 2015 (i.e., acquisitions that took place during the 2016 or 2018 cycles, the last two cycles in our data). Furthermore, we limit the data to include years prior to 2015. So, for example, for the regressions corresponding to acquisition cycle=2000, the data consist of the group that is treated in the 2000 cycle (treated group) and the group that is treated in the 2016 or 2018 cycles (control group) and we only include data up to 2014. Similarly, for the regressions corresponding to acquisition cycle=2004, the data consists of the group that is treated in the 2004 cycle (treated group) and the group that is treated in the 2016 or 2018 cycles (control group) and we again only include data up to 2014. Appendix Table A.23 follows the same structure, but for the index inclusion sample. As is readily seen in both tables, in all but one acquisition cycle, the estimated coefficient on $log(1 + InvPAC) * I(Post)$ is positive and significant.

Finally, we also report in Appendix Tables A.22 and A.23 results where we only include one congressional cycle of post-treatment data for each acquisition time, i.e., we drop all observations after the first post-acquisition cycle. By only including one period of post-treatment data, we essentially eliminate the potential source of bias this new literature has identified when the treatment effect is staggered over time and dynamic. While this an admittedly brute force approach, it is intuitive, easily implemented, sidesteps the âbad comparisonsâ when the treatment is dynamic (e.g., previously treated observations 3 periods post treatment being a control group for just treated observations). Appendix Table A.22 utilizes the full sample, while Appendix Table A.23 focuses on index-driven acquisitions. The estimated coefficient on the interaction term $log(1 + InvPAC) * I(Post)$ is positive and significant, consistent with our main analysis. The point estimate is somewhat smaller than in the main analysis but this lines up with evidence we report in the paper (Figure 1) of treatment size increasing over time.

A.6 Matching institutional investors to FEC employee contribution data

In this appendix we provide further details on the process by which 13-F investors were matched to Federal Elections Commission employee contribution data. For firms that have an identical firm name in the two datasets, we match using that field. We then conduct three fuzzy matching processes using the firm name. First, we search for matches between the institutional investor name list and the employee giving company name list using the full name of the firm after removing special characters. We then conduct a second fuzzy matching process after removing a subset of

words that commonly appear in our list of institutional investors, but we may not see as often in the employee giving company name list dataset. We then conduct a third fuzzy matching process using the first word of each name after removing common words in order to mitigate issues with additional "filler" words in the institutional investor list. For example, an employee may report their firm name as "ABC," while in the institutional investor list, the firm may be known as "ABC Investment Company." We determined that many of these cases had low similarity scores in our first two methods despite being the same firm. For all processes, we use Levenshtein distance to calculate a similarity score for these matches (Package available at `https://pypi.org/project/fuzzywuzzy/`). We use this method after testing several matching methods with a subset of the data. We manually review these matches to determine a logical score threshold for a match. For this matching process we determined this to be a match score of 79. We also use a machine learning approach to confirm additional matches between the datasets. We combine all the potential matches from these different methods and they are then manually verified by our team of research assistants. We then conduct an additional verification using a Google search-based method on matches that the team cannot fully confirm in the spirit of Autor et al. (2020). We use an API to collect the first search result for each field and compare them. If these results match, we consider these firms to be the same. For firms that do not match using this method, we have a research assistant manually Google each of these search terms to confirm that there is no relation between the firms.

A.7 Appendix Tables

Table A.1: Summary Statistics

This table provides the summary statistics. *Firm PAC Giving* is the total political giving by a firm with a PAC to a particular congressional district during a given cycle. *Investor PAC Giving* is the total political giving by an investor with a PAC to a particular congressional district during a given cycle. *Fraction to Republicans* is the fraction of total political giving to the Republican party divided by the sum of political giving to both the Democratic and Republican parties during a given cycle. We further break down the fraction to Republicans by private versus publicly traded institutional investors.

	10th	Q1	Median	Mean	Q3	90th	Std. Dev.	Obs.
Panel A: PAC Giving								
Firm-District-Cycle data								
Firm PAC giving	0	0	0	$195	0	$1,000	$953	8,264,390
No. of districts receiving $PAC_{f,c,t}$	2	6	20	39	53	99	49	8,264,390
Firm giving with $PAC_{f,c,t} > 0$	$500	$500	$1,000	$2,165	$2,500	$5,000	$2,409	746,238
Investor-District-Cycle data								
Investor PAC giving	0	0	0	$174	0	0	$895	2,199,298
No. of districts receiving $PAC_{i,c,t}$	2	4	18	35	48	90	46	2,199,298
Investor giving with $PAC_{i,c,t} > 0$	$500	$500	$1,000	$2,124	$2,500	$5,000	$2,379	179,909
Panel B: Partisanship: Fraction to Republicans								
Firm-Cycle data								
All firms	0.000	0.211	0.461	0.474	0.722	1.000	0.327	21,782
Investor-Cycle data								
All investors	0.125	0.340	0.526	0.522	0.714	0.945	0.279	2,163
Private investors	0.063	0.329	0.519	0.516	0.727	1.000	0.295	1,375
Public investors	0.217	0.366	0.532	0.533	0.694	0.883	0.250	788

Table A.1: Summary Statistics (cont.)

$Cos[x_{f,t}, x_{f,t+1}]$ is the cosine similarity scores between the firm's PAC giving during two consecutive cycles around large stock acquisitions, whereas $Cos[x_{i,t}, x_{i,t+1}]$ is the one for investors. We construct the $Cos[x_{f,t}, x_{f,t+1}]$ and $Cos[x_{i,t}, x_{i,t+1}]$ cosine similarity scores using the equivalent approach but with two cycle differences (e.g., comparing election cycle giving in 2000 and 2004) for firms and investors, respectively.

	Mean	Std. Dev.	Number of Obs.
Panel C: Cosine Similarity			
Investor-Firm-Cycle data			
$Cos[x_{f,t},\ x_{f,t+1}]$	0.1912	0.1992	108,038
$Cos[x_{i,t},\ x_{i,t+1}]$	0.5971	0.2011	77,184
$Cos[x_{f,t},\ x_{f,t+1}] - Cos[x_{f,t-1},\ x_{f,t}]$	-0.1011	0.2341	89,319
$Cos[x_{i,t},\ x_{i,t+1}] - Cos[x_{i,t-1},\ x_{i,t}]$	-0.0034	0.2186	66,467
$Cos[x_{f,t},\ x_{f,t+2}]$	0.1991	0.2043	82,719
$Cos[x_{i,t},\ x_{i,t+2}]$	0.5025	0.1933	69,747
$Cos[x_{f,t},\ x_{f,t+2}] - Cos[x_{f,t-2},\ x_{f,t}]$	-0.1106	0.2334	66,079
$Cos[x_{i,t},\ x_{i,t+2}] - Cos[x_{i,t-2},\ x_{i,t}]$	-0.0017	0.2259	60,065

Table A.2: Summary of acquisition and divestment events

This table presents summary statistics relative to the frequency and size of acquisition and divestment events. New ownership share is defined as the ratio $\frac{\text{stock owned by new investors}}{\text{total stock}}$. The fraction of firms that lobby is calculated by taking the number of firms that lobby at least once in our sample divided by all firms. For the index sample, we examine what the fraction of firms that lobby are eventually acquired by indexers due to an index inclusion event.

	All acquisitions	Index acquisitions
Mean firm-cycle new ownership share	14.4%	6.3%
Mean number of acquisitions per firm-cycle	6.7	2.6
Total acquisitions over the sample period	67,541	5,601
Share of firms that lobby	32%	56%
Mean acquisitions by cycle	3,420	622
Mean number of events by firm-cycle	27.9	8.02
Mean investor size by cycle ($ millions)	5,494	7,760
Mean firm size by cycle ($ millions)	7,469	10,163

Table A.3: Replication of main Table 1 with different clustering level - Firms' and investors' PAC contributions

This table presents the association between the PAC contributions by firms and their investors' PAC contributions at the congressional cycle − district level during the cycles around a large stock acquisition. The data are, therefore, at the investor − firm − congressional cycle − district level. 𝟙(Post) denotes observations that occur after the acquisition has occurred. The dependent variable is the logarithmic transformation of one plus the total dollar amount of PAC contributions the given firm gave to the incumbent in a given district during a given cycle, whereas the independent variable is the logarithmic transformation of one plus the total dollar amount of PAC contributions the given investor gave to the same politician during the same congressional cycle. The mean of the dependent variable is 0.076. Standard errors (in parenthesis) are clustered two-way at the firm and investor levels.

Depend. Var.: **Log(1+Firm PAC)**								
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**
Log(1+Investor PAC) × 𝟙(Post)	0.0303***	0.0310***	0.0318***	0.0264***	0.0284***	0.0320***	0.0162***	0.0135***
	(0.00690)	(0.00703)	(0.00633)	(0.00745)	(0.00628)	(0.00702)	(0.00360)	(0.00313)
Log(1+Investor PAC)	0.0565***	0.0567***	0.0440***	0.0541***	0.0600***	0.0586***	0.0444***	0.0435***
	(0.00479)	(0.00484)	(0.00394)	(0.00486)	(0.00488)	(0.00498)	(0.00373)	(0.00357)
𝟙(Post)	-0.001	-0.002	-0.0009	-0.004***	-0.001	-0.002	0.0007	-0.001***
	(0.00155)	(0.00167)	(0.00146)	(0.00174)	(0.00150)	(0.00166)	(0.00120)	(0.000445)
Fixed Effects								
Firm	X				X	X	X	
Investor	X		X	X			X	
Congressional Cycle	X	X	X		X			
Congressional District	X	X		X		X		
Firm × Investor		X						X
Firm × Congressional District			X					X
Firm × Congressional Cycle				X				X
Investor × Congressional District					X			X
Investor × Congressional Cycle						X		X
Congressional Cycle × District							X	X
N	339,785,165	339,785,165	339,779,962	339,785,165	339,769,326	339,785,165	339,785,165	339,764,091
R^2	0.026	0.026	0.113	0.032	0.031	0.026	0.041	0.135

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table A.4: Firms' and investors' PAC giving − Discrete measure

This table presents the association between the PAC contributions by firms and their investors' PAC contributions at the congressional cycle − district level during the cycles around a large stock acquisition. The data are, therefore, at the investor − firm − congressional cycle − district level. 𝟙(Post) denotes observations that occur after the acquisition has occurred. The dependent variable is an indicator variable which denotes that PAC contributions by a firm are greater than zero; 𝟙(Investor's PAC>0) is similarly defined. The mean of the dependent variable is 0.011. Standard errors (in parenthesis) are clustered at the firm and investor levels.

Depend. Var.: 𝟙**(Firm's PAC>0)**								
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**
𝟙(Inv's PAC>0) × 𝟙(Post)	0.0252***	0.0258***	0.0301***	0.0215***	0.0277***	0.0263***	0.0164***	0.0134***
	(0.00142)	(0.00145)	(0.00120)	(0.00132)	(0.00139)	(0.00144)	(0.00139)	(0.00114)
𝟙(Investor's PAC>0)	0.0501***	0.0502***	0.0428***	0.0480***	0.0580***	0.0514***	0.0437***	0.0427***
	(0.00120)	(0.00121)	(0.000904)	(0.00114)	(0.00119)	(0.00122)	(0.00119)	(0.00113)
𝟙(Post)	-0.0002***	-0.0003***	-0.0002***	-0.0005***	-0.0003***	-0.0003***	-0.0001	-0.0001***
	(0.0001)	(0.0001)	(0.0001)	(0.0000)	(0.0001)	(0.0001)	(0.0001)	(0.0000)
Fixed Effects								
Firm	X				X	X	X	
Investor	X		X	X			X	
Congressional Cycle	X	X	X		X			
Congressional District	X	X		X		X		
Firm × Investor		X						X
Firm × Congressional District			X					X
Firm × Congressional Cycle				X				X
Investor × Congressional District					X			X
Investor × Congressional Cycle						X		X
Congressional Cycle × District							X	X
N	339,785,165	339,785,165	339,779,962	339,785,165	339,769,326	339,785,165	339,785,165	339,764,091
R-R^2	0.030	0.030	0.115	0.036	0.030	0.030	0.038	0.135

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table A.5: Firms' and investors' PAC contributions: Alternative additions

This table presents the association between the PAC contributions by firms and their investors' PAC contributions at the congressional cycle − district level during the cycles around a large stock acquisition. The data are, therefore, at the investor − firm − congressional cycle − district level. 𝟙(Post) denotes observations that occur after the acquisition has occurred. The dependent variable is the logarithmic transformation of one plus the total dollar amount of PAC contributions the given firm gave to the incumbent in a given district during a given cycle, whereas the independent variable is the logarithmic transformation of one plus the total dollar amount of PAC contributions the given investor gave to the same politician during the same congressional cycle. Standard errors are clustered at the firm and investor levels.

Depend. Var.: **Log (X+ Firm PAC)**								
	X=0.1	**X=10**	**X=0.01**	**X=100**	**X=0.001**	**X=1,000**	**X=0.0001**	**X=10,000**
Log(X+Investor PAC) × 𝟙(Post)	0.0135***	0.0135***	0.0135***	0.0134***	0.0135***	0.0132***	0.0135***	0.0129***
	(0.00118)	(0.00123)	(0.00117)	(0.00130)	(0.00117)	(0.00148)	(0.00116)	(0.00178)
Log(X+Investor PAC)	0.0433***	0.0439***	0.0432***	0.0445***	0.0431***	0.0454***	0.0431***	0.0464***
	(0.00117)	(0.00121)	(0.00116)	(0.00127)	(0.00115)	(0.00143)	(0.00115)	(0.00173)
𝟙(Post)	0.02***	-0.03***	0.05***	-0.06***	0.09***	-0.09***	0.12***	-0.11***
	(0.00256)	(0.00292)	(0.00520)	(0.00604)	(0.00782)	(0.0102)	(0.0104)	(0.0164)
Fixed Effects								
Firm × Investor	X	X	X	X	X	X	X	X
Firm × Congressional District	X	X	X	X	X	X	X	X
Firm × Congressional Cycle	X	X	X	X	X	X	X	X
Investor × Congressional District	X	X	X	X	X	X	X	X
Investor × Congressional Cycle	X	X	X	X	X	X	X	X
Congressional Cycle × District	X	X	X	X	X	X	X	X
N	339,764,091	339,764,091	339,764,091	339,764,091	339,764,091	339,764,091	339,764,091	339,764,091
R^2	0.135	0.134	0.135	0.134	0.135	0.131	0.135	0.127
λ_Y	-2.20	2.35	-4.48	4.63	-6.75	6.91	-9.03	9.21

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table A.6: Firms' and investors' PAC contributions - Politician Fixed Effects

This table presents the association between the PAC contributions by firms and their investors' PAC contributions at the congressional cycle − politician level during the cycles around a large stock acquisition. The data are, therefore, at the investor − firm − congressional cycle − politician level. 𝟙(Post) denotes observations that occur after the acquisition has occurred. The dependent variable is the logarithmic transformation of one plus the total dollar amount of PAC contributions the given firm gave to the incumbent in a given politician during a given cycle, whereas the independent variable is the logarithmic transformation of one plus the total dollar amount of PAC contributions the given investor gave to the same politician during the same congressional cycle. The mean of the dependent variable is 0.076. Standard errors are clustered at the firm and investor levels.

Depend. Var.: **Log (1+ Firm PAC)**								
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**
Log(1+Investor PAC) × 𝟙(Post)	0.026***	0.026***	0.025***	0.022***	0.024***	0.027***	0.016***	0.011***
	(0.00152)	(0.00156)	(0.000939)	(0.00140)	(0.00144)	(0.00154)	(0.00149)	(0.000918)
Log(1+Investor PAC)	0.051***	0.052***	0.029***	0.049***	0.057***	0.053***	0.044***	0.043***
	(0.00127)	(0.00129)	(0.000643)	(0.00120)	(0.00118)	(0.00129)	(0.00126)	(0.00105)
𝟙(Post)	-0.001	-0.001***	0.003***	-0.004***	0.0004	-0.002***	0.001*	-0.001***
	(0.000406)	(0.000447)	(0.000303)	(0.000177)	(0.000402)	(0.000458)	(0.000401)	(0.00005)
Fixed Effects								
Firm	X				X	X	X	
Investor	X		X	X			X	
Congressional Cycle	X	X	X		X			
Politician	X	X		X		X		
Firm × Investor		X						X
Firm × Politician			X					X
Firm × Congressional Cycle				X				X
Investor × Politician					X			X
Investor × Congressional Cycle						X		X
Congressional Cycle × Politician							X	X
N	339,785,165	339,785,165	339,758,947	339,785,165	339,478,608	339,785,165	339,785,165	339,451,016
R^2	0.031	0.032	0.221	0.038	0.042	0.032	0.041	0.237

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table A.7: Firms' and investors' PAC contributions − Excluding the largest 4 institutional investors

This table presents the association between the PAC contributions by firms and their investors' PAC contributions at the congressional cycle − district level during the cycles around a large stock acquisition by excluding the largest 4 institutional investors (i.e., BlackRock, Vanguard, State Street, and Fidelity). The data are, therefore, at the investor − firm − congressional cycle − district level. 𝟙(Post) denotes observations that occur after the acquisition has occurred. The dependent variable is the logarithmic transformation of one plus the total dollar amount of PAC contributions the given firm gave to the incumbent in a given district during a given cycle, whereas the independent variable is the logarithmic transformation of one plus the total dollar amount of PAC contributions the given investor gave to the same congressional district during the same congressional cycle. The mean of the outcome variable is 0.074. Standard errors are clustered at the firm and investor levels.

Depend. Var.: **Log(1+Firm PAC)**								
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**
Log(1+Investor PAC) × 𝟙(Post)	0.0229***	0.0234***	0.0275***	0.0184***	0.0245***	0.0239***	0.0158***	0.0129***
	(0.00153)	(0.00157)	(0.00129)	(0.00137)	(0.00150)	(0.00154)	(0.00150)	(0.00119)
Log(1+Investor PAC)	0.0508***	0.0510***	0.0429***	0.0485***	0.0588***	0.0523***	0.0446***	0.0438***
	(0.00131)	(0.00132)	(0.000966)	(0.00124)	(0.00130)	(0.00133)	(0.00130)	(0.00123)
𝟙(Post)	-0.0003	-0.001**	-0.0004	-0.003***	-0.001	-0.001**	0.0007*	-0.001***
	(0.000406)	(0.000446)	(0.000395)	(0.000174)	(0.000405)	(0.000458)	(0.000403)	(0.000130)
Fixed Effects								
Firm	X				X	X	X	
Investor	X		X	X			X	
Congressional Cycle	X	X	X		X			
Congressional District	X	X		X		X		
Firm × Investor		X						X
Firm × Congressional District			X					X
Firm × Congressional Cycle				X				X
Investor × Congressional District					X			X
Investor × Congressional Cycle						X		X
Congressional Cycle × District							X	X
N	327,565,333	327,565,333	327,560,537	327,565,333	327,549,494	327,565,333	327,565,333	327,544,666
R^2	0.030	0.031	0.113	0.037	0.030	0.031	0.039	0.134

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. *Standard Errors* are in parentheses.

Table A.8: Firms' PAC contributions and weighted investor PAC contributions - Total Ownership

This table presents the association between the PAC contributions by firms and the weighted sum of their investors' PAC contributions at the congressional cycle − congressional candidate level. The data are, therefore, at the firm − congressional cycle − congressional candidate level. The outcome variable is the total dollar amount of PAC contributions the given investor gave to the given congressional candidate during the given congressional cycle. *Log of weighted sum of investor PAC* is defined as the logarithmic transformation of the sum across all investors that have a stake in the firm by taking the weighted sum of a given investor's ownership times the investor's contribution to the given politician during the given cycle summed across all investors. The mean of the dependent variable is 0.105. Standard errors are clustered at either the firm level or double clustered at the firm and politician levels.

Depend. Variable: **Log(1+Firm PAC)**							
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**
Log of weighted sum of investor PAC	0.0436***	0.0436***	0.0551***	0.0380***	0.0424***	0.0414***	0.0360***
	(0.000920)	(0.00171)	(0.00189)	(0.00154)	(0.00160)	(0.00171)	(0.00211)
Fixed Effects							
Firm			X				
Congressional Cycle			X	X			
Politician					X		
Firm × Politician				X		X	X
Firm × Congressional Cycle					X	X	X
Congressional Cycle × Politician							X
Clustering							
Firm	X						
Firm, Politician		X	X	X	X	X	X
N	5,870,095	5,870,095	5,870,095	5,342,535	5,870,095	5,342,535	5,342,535
R^2	0.009	0.009	0.020	0.273	0.033	0.278	0.284

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. *Standard Errors* are in parentheses.

Table A.9: Firms' and investors' fraction of PAC contributions to Republicans

This table presents whether the fraction of total PAC contributions given to Republicans at the congressional cycle level by newly acquired portfolio firms changes around large stock acquisitions. The dependent variable is defined as the fraction of overall PAC contributions given to Republicans by the portfolio firm (i.e., total Republican giving divided by total giving to Republicans and Democrats) during the given congressional cycle; *Investor's Fraction to Republicans* is similarly defined. Standard errors (in parenthesis) are clustered at the firm×investor level.

Dependent Variable: **Firm's Fraction to Republicans**					
	(1)	**(2)**	**(3)**	**(4)**	**(5)**
Investor's Fraction to Republicans × 𝟙(Post)	0.0133**	0.0397***	0.0297***	0.0280***	0.0299***
	(0.00525)	(0.00509)	(0.00571)	(0.00554)	(0.00607)
Investor's Fraction to Republicans	0.0697***	0.0402***	0.0955***	0.0885***	0.0927***
	(0.00232)	(0.00205)	(0.00469)	(0.00461)	(0.00489)
𝟙(Post)	0.0606***	-0.0291***	-0.0206***	-0.0307***	-0.0384***
	(0.00125)	(0.00140)	(0.00154)	(0.00146)	(0.00159)
Fixed Effects					
Firm	X	X		X	
Congressional Cycle		X	X	X	X
Investor			X	X	
Firm × Investor					X
N	793,307	793,307	793,291	793,280	792,093
R^2	0.154	0.204	0.069	0.205	0.214

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table A.10: Firms' and investors' lobbying expenditure

This table presents the association between the lobbying expenditure by firms and their investors' lobbying expenditure at the congressional cycle − issue level during the cycles around a large stock acquisition. The data are, therefore, at the investor − firm − congressional cycle − issue level. $\mathbb{1}$(Post) denotes observations that occur after the acquisition has occurred. The dependent variable is the logarithmic transformation of one plus the total dollar amount of lobbying expenditure the given firm made on a given issue during a given cycle, whereas the independent variable is the logarithmic transformation of one plus the total dollar amount of lobbying expenditure the given investor has made on the same issue during the same congressional cycle. The mean of the dependent variable is 0.530. Standard errors are clustered at the firm×investor level.

Depend. Var.: **Log (1+Lobby$_{Firm}$)**								
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**
Log(1+Lobby$_{Investor}$) × $\mathbb{1}$(Post)	0.0583***	0.0598***	0.0603***	0.0572***	0.0618***	0.0590***	0.0374***	0.0383***
	(0.00337)	(0.00346)	(0.00332)	(0.00326)	(0.00344)	(0.00338)	(0.00340)	(0.00349)
Log(1+Lobby$_{Investor}$)	0.00859***	0.00778***	0.0902***	0.00910***	0.0906***	0.00854***	0.00810***	0.00780***
	(0.00259)	(0.00261)	(0.00262)	(0.00252)	(0.00270)	(0.00259)	(0.00260)	(0.00261)
$\mathbb{1}$(Post)	-0.013***	-0.015***	-0.012***	-0.012***	-0.011***	-0.010***	-0.009***	-0.007***
	(0.00255)	(0.00342)	(0.000621)	(0.000602)	(0.00267)	(0.00267)	(0.00254)	(0.000579)
Fixed Effects								
Firm	X				X	X	X	
Investor	X		X	X			X	
Congressional Cycle	X	X	X		X			
Issue	X	X		X		X		
Firm × Investor		X						X
Firm × Issue			X					X
Firm × Congressional Cycle				X				X
Investor × Issue					X			X
Investor × Congressional Cycle						X		X
Congressional Cycle × Issue							X	X
N	24,653,863	24,653,863	24,653,863	24,653,863	24,653,863	24,653,863	24,653,863	24,653,863
R^2	0.149	0.151	0.093	0.164	0.080	0.150	0.158	0.173

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table A.11: Firms' and passive investors' PAC contributions − S&P index acquisitions by the largest three generalist indexers

This table presents the association between the PAC contributions by firms and their investors' PAC contributions at the congressional cycle − district level during the cycles around large stock acquisitions due to S&P index inclusion by State Street, Vanguard, and Barclays Global Investors (that later becomes part of the BlackRock group). The data are, therefore, at the investor − firm − congressional cycle − district level. 𝟙(Post) denotes observations that occur after the acquisition has occurred. The outcome variable logarithmic transformation of one plus the total dollar amount of PAC contributions from a given firm to the incumbent in a given district in a given election cycle; *Log(1+Investor PAC)* is similarly defined. The mean of the outcome variable is 0.010. Standard errors are clustered at the firm and investor levels.

Depend. Var.: **Log(1+Firm PAC)**								
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**
Log(1+Investor PAC) × 𝟙(Post)	0.0429***	0.0429***	0.0476***	0.0429***	0.0444***	0.0421***	0.0210***	0.0189***
	(0.00655)	(0.00656)	(0.00628)	(0.00648)	(0.00660)	(0.00655)	(0.00801)	(0.00736)
Log(1+Investor PAC)	0.0624***	0.0624***	0.0795***	0.0624***	0.0867***	0.0637***	0.00690	0.00781
	(0.00502)	(0.00502)	(0.00516)	(0.00494)	(0.00559)	(0.00501)	(0.00581)	(0.00579)
𝟙(Post)	-0.011	-0.011	-0.0135	-0.043***	-0.012	-0.014	0.004	-0.021**
	(0.0112)	(0.0111)	(0.0119)	(0.00705)	(0.0116)	(0.0114)	(0.0104)	(0.00808)
Fixed Effects								
Firm	X				X	X	X	
Investor	X		X	X			X	
Congressional Cycle	X	X	X		X			
Congressional District	X	X		X		X		
Firm × Investor		X						X
Firm × Congressional District			X					X
Firm × Congressional Cycle				X				X
Investor × Congressional District					X			X
Investor × Congressional Cycle						X		X
Congressional Cycle × District							X	X
N	1,077,557	1,077,557	1,077,557	1,077,557	1,077,557	1,077,557	1,077,557	1,077,557
R^2	0.052	0.052	0.106	0.058	0.046	0.052	0.074	0.143

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. *Standard Errors* are in parentheses.

Table A.12: Firms' and investors' PAC contributions − Controlling for Changes in Active Ownership

This table presents the association between the PAC contributions by firms and their investors' PAC contributions at the congressional cycle − district level during the cycles around a large stock acquisition. The data are, therefore, at the investor − firm − congressional cycle − district level. 𝟙(Post) denotes observations that occur after the acquisition has occurred. The dependent variable is the logarithmic transformation of one plus the total dollar amount of PAC contributions the given firm gave to the incumbent in a given district during a given cycle, whereas the independent variable is the logarithmic transformation of one plus the total dollar amount of PAC contributions the given investor gave to the same politician during the same congressional cycle. The variable, *Active*, is the total percentage of ownership by active investors. The mean of the dependent variable is 0.085. Standard errors are clustered at the firm and investor levels.

D.V.: **Log (1+PAC_{Firm})**								
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**
Log(1+PAC_{Inv}) × 𝟙(Post)	0.0404***	0.0410***	0.0471***	0.0368***	0.0450***	0.0405***	0.0248***	0.0199***
	(0.00359)	(0.00363)	(0.00317)	(0.00336)	(0.00363)	(0.00367)	(0.00350)	(0.00290)
Log(1+PAC_{Inv}) × *Active*	-9e-05***	-.0001***	-7e-05***	-9e-05***	-8e-05***	-9e-05***	-.0001***	-8e-05***
	(1.74e-05)	(1.76e-05)	(1.48e-05)	(1.61e-05)	(1.75e-05)	(1.76e-05)	(1.74e-05)	(1.37e-05)
Log(1+PAC_{Inv})	0.0435***	0.0435***	0.0427***	0.0414***	0.0548***	0.0447***	0.0346***	0.0343***
	(0.00275)	(0.00275)	(0.00211)	(0.00251)	(0.00264)	(0.00272)	(0.00272)	(0.00237)
𝟙(Post)	-0.002	-0.003	-0.003**	-0.005***	-0.003**	-0.006***	-0.0003	-0.002***
	(0.00176)	(0.00186)	(0.00174)	(0.000487)	(0.00177)	(0.00197)	(0.00176)	(0.000371)
Active	-.027***	-.0280***	-.028***		-.026***	-.013**	-.026***	
	(0.00539)	(0.00543)	(0.00540)		(0.00541)	(0.00556)	(0.00538)	
Fixed Effects								
Firm	X				X	X	X	
Investor	X		X	X			X	
Cong. Cycle	X	X	X		X			
Cong. District	X	X		X		X		
Firm × Investor		X						X
Firm × Cong. District			X					X
Firm × Cong. Cycle				X				X
Investor × Cong. District					X			X
Investor × Cong. Cycle						X		X
Cong. Cycle × District							X	X
N	38,356,758	38,356,758	38,356,442	38,356,758	38,356,169	38,356,758	38,356,758	38,355,867
R^2	0.037	0.037	0.101	0.045	0.037	0.038	0.050	0.129

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table A.13: Firms' PAC contributions and weighted PAC contributions by indexers (index investors only)

This table presents the association between the PAC contributions by firms and the weighted sum of their index investors' PAC contributions at the congressional cycle − congressional candidate level. The data are, therefore, at the firm − congressional cycle − congressional candidate level. The outcome variable is the total dollar amount of PAC contributions the given index investor gave to the given congressional candidate during the given congressional cycle. *Log of weighted sum of investor PAC* is defined as the logarithmic transformation of the sum across index investors that have a stake in the firm by taking the weighted sum of a given investor's ownership times the investor's contribution to the given politician during the given cycle summed across all investors. Standard errors are clustered at the firm and politician levels.

Depend. Variable: **Log(1+Firm PAC)**							
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**
Log of weighted sum of indexer PAC	0.0369***	0.0369***	0.0409***	0.0260***	0.0285***	0.0279***	0.0212***
	(0.00124)	(0.000350)	(0.00168)	(0.00129)	(0.00144)	(0.00142)	(0.00185)
Fixed Effects							
Firm			X				
Congressional Cycle			X	X			
Congressional Candidate					X		
Firm × Congressional Candidate				X		X	X
Firm × Congressional Cycle					X	X	X
Congressional Candidate× Cycle							X
Clustering							
Firm	X						
Firm, Candidate		X	X	X	X	X	X
N	2,293,991	2,293,991	2,293,991	2,154,709	2,293,991	2,154,709	2,154,709
R^2	0.009	0.009	0.016	0.233	0.029	0.237	0.245

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. *Standard Errors* are in parentheses.

Table A.14: Firms' and investors' PAC contributions − Divestments and discrete measure

This table presents the association between the PAC contributions by firms and their investors' PAC contributions at the congressional cycle − district level during the cycles around a large stock divestments. The data are, therefore, at the investor − firm − congressional cycle − district level. 𝟙(Post) denotes observations that occur after the divestments has occurred. The dependent variable is an indicator variable which denotes that PAC contributions to a given incumbent by a firm are greater than zero; 𝟙(Investor's PAC>0) is similarly defined. The mean of the outcome variable is 0.015. Standard errors are clustered at the firm and investor levels.

Depend. Var.: **𝟙(Firm's PAC>0)**								
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**
𝟙(Investor's PAC>0) × 𝟙(Post)	-0.075***	-0.076***	-0.078***	-0.061***	-0.074***	-0.075***	-0.074***	-0.067***
	(0.00755)	(0.00764)	(0.00700)	(0.00695)	(0.00748)	(0.00770)	(0.00752)	(0.00660)
𝟙(Investor's PAC>0)	0.209***	0.210***	0.194***	0.190***	0.224***	0.209***	0.199***	0.190***
	(0.00763)	(0.00770)	(0.00704)	(0.00711)	(0.00760)	(0.00778)	(0.00759)	(0.00694)
𝟙(Post)	0.002***	0.003***	0.002***	0.002***	0.002***	0.001***	0.002***	0.002***
	(0.000280)	(0.000306)	(0.000268)	(0.000207)	(0.000279)	(0.000322)	(0.000279)	(0.000205)
Fixed Effects								
Firm	X				X	X	X	
Investor	X		X	X			X	
Congressional Cycle	X	X	X		X			
Congressional District	X	X		X		X		
Firm × Investor		X						X
Firm × Congressional District			X					X
Firm × Congressional Cycle				X				X
Investor × Congressional District					X			X
Investor × Congressional Cycle						X		X
Congressional Cycle × District							X	X
N	104,258,141	104,258,141	104,249,778	104,258,141	104,232,606	104,258,141	104,258,141	104,225,090
R^2	0.062	0.063	0.160	0.073	0.066	0.063	0.069	0.189

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. *Standard Errors* are in parentheses.

Table A.15: Firms' and investors' PAC contributions by using average past three cycle investor giving

This table presents the association between the PAC contributions by firms and their investors' PAC contributions at the congressional cycle − district level during the cycles around a large stock acquisition. The data are, therefore, at the investor − firm − congressional cycle − district level. 𝟙(Post) denotes observations that occur after the acquisition has occurred. The dependent variable is the logarithmic transformation of one plus the total dollar amount of PAC contributions the given firm gave to the incumbent in a given district during a given cycle, whereas the independent variable is the logarithmic transformation of one plus the total dollar amount of PAC contributions the given investor gave to the same politician during the past three congressional cycle. The mean of the outcome variable is 0.076. Standard errors are clustered at the firm×investor level.

Depend. Var.: **Log (1+ Firm PAC)**								
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**
Log(1+Investor PAC) × 𝟙(Post)	0.0169***	0.0174***	0.0168***	0.0162***	0.0170***	0.0175***	0.00516***	0.00277***
	(0.00112)	(0.00114)	(0.000660)	(0.00105)	(0.00103)	(0.00111)	(0.00107)	(0.000521)
Log(1+Investor PAC)	0.0255***	0.0255***	0.00918***	0.0247***	0.0122***	0.0259***	0.0197***	-0.0004
	(0.000825)	(0.000831)	(0.000262)	(0.000786)	(0.000503)	(0.000813)	(0.000843)	(0.000323)
𝟙(Post)	-.004***	-.006***	-.001	-.009***	-.005***	-.007***	.004***	-.002***
	(0.00154)	(0.00188)	(0.00124)	(0.000794)	(0.00147)	(0.00165)	(0.00150)	(0.000439)
Fixed Effects								
Firm	X				X	X	X	
Investor	X		X	X			X	
Congressional Cycle	X	X	X		X			
Congressional District	X	X		X		X		
Firm × Investor		X						X
Firm × Congressional District			X					X
Firm × Congressional Cycle				X				X
Investor × Congressional District					X			X
Investor × Congressional Cycle						X		X
Congressional Cycle × District							X	X
N	34,027,397	34,027,397	33,874,084	34,027,397	34,005,676	34,027,397	34,027,397	33,850,210
R^2	0.048	0.049	0.260	0.056	0.058	0.048	0.064	0.284

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table A.16: Firms' and index investors' PAC contributions − Index Investor Types

This table presents the association between the PAC contributions by firms and their investors' PAC contributions at the congressional cycle − district level during the cycles around a large stock acquisition using a variety of ownership breakdowns. The data are, therefore, at the investor − firm − congressional cycle − district level. Columns 1 and 2 break down the sample by above versus below median skew where skew is defined as the absolute value of Republican giving share minus 0.5. 𝟙(Post) denotes observations that occur after the acquisition has occurred. The dependent variable is the logarithmic transformation of one plus the total dollar amount of PAC contributions the given firm gave to the incumbent in a given district during a given cycle, whereas the independent variable is the logarithmic transformation of one plus the total dollar amount of PAC contributions the given investor gave to the same politician during the same congressional cycle. The mean of the dependent variable of columns 1 and 2 are 0.087 and 0.132, respectively. Standard errors (in parenthesis) are clustered at the firm × investor levels.

Depend. Var.: **Log(1+Firm PAC)**		
	(1)	**(2)**
	More Partisan	*Less Partisan*
Log(1+Investor PAC) × 𝟙(Post)	0.0169***	0.0099***
	(0.00519)	(0.00142)
Log(1+Investor PAC)	0.0382***	0.0355***
	(0.00811)	(0.00118)
𝟙(Post)	-0.008***	-0.008***
	(0.00274)	(0.00130)
Fixed Effects		
Firm × Investor	X	X
Firm × Congressional District	X	X
Firm × Congressional Cycle	X	X
Investor × Congressional District	X	X
Investor × Congressional Cycle	X	X
Congressional Cycle × District	X	X
N	5,953,168	24,699,058
R^2	0.191	0.177

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table A.17: Firms' PAC contributions and weighted investor PAC contributions - Active and Passive Ownership

This table presents the association between the PAC contributions by firms and the weighted sum of their investors' PAC contributions at the congressional cycle − congressional candidate level. The data are, therefore, at the firm − congressional cycle − congressional candidate level. The outcome variable is the total dollar amount of PAC contributions the given investor gave to the given congressional candidate during the given congressional cycle. The mean of the dependent variable is 0.085. The weighted sum variables are defined as the logarithmic transformation of the sum across all investors that have a stake in the firm by taking the weighted sum of a given investor's ownership times the investor's contribution to the given politician during the given cycle summed across all investors. This is done separately for active versus passive investors to construct two independent variables. The mean of the dependent variable is 0.105. Standard errors are clustered at either the firm level or double clustered at the firm and politician levels.

Depend. Variable: **Log(1+Firm PAC)**							
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**
Log of weighted sum of active investor PAC	0.0226***	0.0226***	0.0266***	0.0160***	0.0155***	0.0173***	0.0113***
	(0.00123)	(0.00200)	(0.00170)	(0.00130)	(0.00165)	(0.00129)	(0.00207)
Log of weighted sum of passive investor PAC	0.0326***	0.0326***	0.0425***	0.0305***	0.0342***	0.0336***	0.0278***
	(0.00115)	(0.00183)	(0.00193)	(0.00160)	(0.00170)	(0.00173)	(0.00201)
Fixed Effects							
Firm			X				
Congressional Cycle			X	X			
Politician					X		
Firm × Politician				X		X	X
Firm × Congressional Cycle					X	X	X
Congressional Cycle × Politician							X
Clustering							
Firm	X						
Firm, Politician		X	X	X	X	X	X
N	5,870,095	5,870,095	5,870,095	5,342,535	5,870,095	5,342,535	5,342,535
R^2	0.009	0.009	0.020	0.273	0.033	0.278	0.283

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. *Standard Errors* are in parentheses.

Table A.18: Firms' and investors' PAC contributions − Granular Investor Types

This table presents the association between the PAC contributions by firms and their investors' PAC contributions at the congressional cycle − district level during the cycles around a large stock acquisition using the investor classification breakdowns of Bushee (2001). Column 1, for instance, only includes the cases where the given institutional investor is an investment company. 𝟙(Post) denotes observations that occur after the acquisition has occurred. The dependent variable is the logarithmic transformation of one plus the total dollar amount of PAC contributions the given firm gave to the incumbent in a given district during a given cycle, whereas the independent variable is the logarithmic transformation of one plus the total dollar amount of PAC contributions the given investor gave to the same politician during the same congressional cycle. *Investment Advisors Companies* only include funds of investment advisors and companies, such as hedge funds, whereas *Bank Trusts* only include bank trusts, *Insurance Companies* only include funds that belong to insurance companies, and *Corporate (Public) Pensions* and *Endowments* contain funds by corporate (public) pensions and endowments, respectively. Standard errors are clustered at the firm×investor level.

Depend. Var.: **Log(1+Firm PAC)**					
	(1) *Investment Advisors & Companies*	**(2)** *Bank Trusts*	**(3)** *Insurance Companies*	**(4)** *Corporate Pensions*	**(5)** *Endowments & Public Pensions*
Log(1+Investor PAC) × 𝟙(Post)	0.020***	0.009***	0.006**	0.027***	-0.055***
	(0.001660)	(0.002072)	(0.003434)	(0.011944)	(0.010023)
Log(1+Investor PAC)	0.035***	0.043***	0.037***	0.041***	0.139***
	(0.001275)	(0.001776)	(0.004021)	(0.005790)	(0.016532)
𝟙(Post)	-0.001***	-0.004***	-0.003**	-0.026***	-1.49e-15
	(0.000088)	(0.000781)	(0.001392)	(0.011887)	(5.57e-10)
Fixed Effects					
Firm × Investor	X	X	X	X	X
Firm × Congressional District	X	X	X	X	X
Firm × Congressional Cycle	X	X	X	X	X
Investor × Congressional District	X	X	X	X	X
Investor × Congressional Cycle	X	X	X	X	X
Congressional Cycle × District	X	X	X	X	X
N	256,349,670	37,644,254	11,503,499	1,868,518	4,291,699
R^2	0.128	0.164	0.178	0.191	0.165

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. *Standard Errors* are in parentheses.

Table A.19: Convergence of firms' and investors' contributions using cosine scores − Staggered Difference-in-Difference Estimation

This table presents how similar the firm and investor giving become around acquisitions using a staggered difference-in-difference estimation procedure. Specifically, we follow Sant'Anna and Zhao (2020) and Rios-Avila, Sant'Anna and Callaway (2021) to run the staggered difference-in-difference estimations. The outcome variable is the cosine similarity score between the firm's PAC contributions and the investor's PAC contributions, whereas the independent variable is a post variable that takes the value of one for the cycles after the acquisition period, zero otherwise. There are 69,252 of observations in the analysis. Standard errors are clustered at the firm×investor level.

	Coefficient	**Standard Errors**	**Z-Score**	**P-Value**	**Lower CI**	**Upper CI**
Average Treatment Effect on Treated						
ATT	0.025797***	.0037327	6.91	0.00	0.0184809	0.033113
Average Treatment Effect by Group						
Average Effect	0.025083***	0.0044415	5.65	0.00	0.0163779	0.0337882
Acquisition Cycle 1984	0.0515308***	.0130979	3.93	0.00	0.0258593	0.0772023
Acquisition Cycle 1986	0.0269802**	0.0110782	2.44	0.01	0.0052673	0.0486932
Acquisition Cycle 1988	0.0128932	0.0160012	0.81	0.420	-0.0184686	0.0442549
Acquisition Cycle 1990	0.0581022***	0.0131653	4.41	0.00	0.0322987	0.0839056
Acquisition Cycle 1992	0.0512136***	0.0122613	4.18	0.00	0.027182	0.0752452
Acquisition Cycle 1994	0.0244238**	0.0109195	2.24	0.02	0.003022	0.0458257
Acquisition Cycle 1996	0.0194154*	0.0119057	1.63	0.10	-0.0039194	0.0427502
Acquisition Cycle 1998	0.0289637***	0.0071041	4.08	0.00	0.0150399	0.0428875
Acquisition Cycle 2000	0.0123015	0.0092443	1.33	0.18	-0.0058171	0.0304201
Acquisition Cycle 2002	0.0102398	0.009696	1.06	0.29	-0.008764	0.0292436
Acquisition Cycle 2004	0.0355078***	0.0085855	4.14	0.00	0.0186806	0.0523351
Acquisition Cycle 2006	0.0244682**	0.0122037	2.00	0.04	0.0005495	0.048387
Acquisition Cycle 2008	0.0078341	0.0128436	0.61	0.54	-0.0173388	0.033007
Acquisition Cycle 2010	0.0339928***	0.0132996	2.56	0.01	0.0079261	0.0600595
Acquisition Cycle 2012	0.036196***	0.0145843	2.48	0.01	0.0076114	0.0647807
Acquisition Cycle 2014	0.0174978	0.0135669	1.29	0.19	-0.0090928	0.0440884

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table A.20: Firms' and investors' PAC contributions − Staggered Difference-in-Difference − Reporting only Interaction Term Coefficients from Individual Regressions (continues)

By using the the last-treated observations as a control for the early-treated observations, this table presents a version of a staggered difference-in-difference estimation of the association between the PAC contributions by firms and their investors' PAC contributions at the congressional cycle − district level during the cycles around a large stock acquisition. Each of the rows provides the estimations of the interaction term, *Log(1+Investor PAC)* × 𝟙*(Post)*, from individual regressions following the same specification as the ones we have in our baseline regressions with the exception that we run the regressions by having only acquisitions that take place in the given cycle and the control group of pairs that will be treated at the end of the sample period (i.e., cycles 2016 and 2018). Specifically, the outcome variable is *Log (1+ Firm PAC)* and the independent variables are *Log(1+Investor PAC)* × 𝟙*(Post)*, *Log(1+Investor PAC)*, and 𝟙(Post). Fixed effects specifications vary by column and are reported at the end of the table on the next page. Standard errors are clustered at the firm×investor level.

Depend. Var.: **Log (1+ Firm PAC)**								
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**
Acquisition Cycle=2014	0.0471***	0.0473***	0.0484***	0.0429***	0.0462***	0.0500***	0.0204***	0.0178***
	(0.00297)	(0.00298)	(0.00270)	(0.00264)	(0.00284)	(0.00291)	(0.00296)	(0.00268)
Acquisition Cycle=2012	0.0586***	0.0588***	0.0595***	0.0536***	0.0565***	0.0602***	0.0321***	0.0281***
	(0.00543)	(0.00546)	(0.00447)	(0.00529)	(0.00503)	(0.00569)	(0.00531)	(0.00483)
Acquisition Cycle=2010	0.0573***	0.0575***	0.0563***	0.0526***	0.0535***	0.0589***	0.0335***	0.0282***
	(0.00489)	(0.00491)	(0.00421)	(0.00462)	(0.00467)	(0.00512)	(0.00476)	(0.00423)
Acquisition Cycle=2008	0.0422***	0.0424***	0.0440***	0.0385***	0.0396***	0.0432***	0.0187***	0.0157***
	(0.00375)	(0.00377)	(0.00318)	(0.00346)	(0.00351)	(0.00372)	(0.00352)	(0.00304)
Acquisition Cycle=2006	0.0363***	0.0368***	0.0381***	0.0335***	0.0335***	0.0376***	0.0177***	0.0149***
	(0.00436)	(0.00439)	(0.00364)	(0.00428)	(0.00414)	(0.00458)	(0.00414)	(0.00375)
Acquisition Cycle=2004	0.0364***	0.0366***	0.0377***	0.0348***	0.0347***	0.0383***	0.0190***	0.0171***
	(0.00317)	(0.00319)	(0.00276)	(0.00306)	(0.00310)	(0.00339)	(0.00314)	(0.00287)
Acquisition Cycle=2002	0.0153***	0.0157***	0.0188***	0.0112**	0.0150***	0.0186***	0.00440	0.00367
	(0.00526)	(0.00536)	(0.00446)	(0.00490)	(0.00508)	(0.00564)	(0.00524)	(0.00467)
Acquisition Cycle=2000	0.0283***	0.0290***	0.0308***	0.0254***	0.0263***	0.0314***	0.0183***	0.0167***
	(0.00403)	(0.00410)	(0.00340)	(0.00379)	(0.00386)	(0.00413)	(0.00391)	(0.00346)
Acquisition Cycle=1998	0.0264***	0.0273***	0.0325***	0.0239***	0.0240***	0.0330***	0.0152***	0.0169***
	(0.00391)	(0.00396)	(0.00310)	(0.00374)	(0.00373)	(0.00400)	(0.00375)	(0.00332)
Acquisition Cycle=1996	0.0274***	0.0277***	0.0301***	0.0243***	0.0267***	0.0287***	0.0155***	0.0144***
	(0.00338)	(0.00339)	(0.00289)	(0.00310)	(0.00324)	(0.00352)	(0.00306)	(0.00274)
Acquisition Cycle=1994	0.0361***	0.0362***	0.0374***	0.0318***	0.0362***	0.0372***	0.0218***	0.0192***
	(0.00365)	(0.00367)	(0.00324)	(0.00325)	(0.00348)	(0.00373)	(0.00347)	(0.00310)
Acquisition Cycle=1992	0.0429***	0.0429***	0.0426***	0.0378***	0.0425***	0.0442***	0.0279***	0.0236***
	(0.00695)	(0.00701)	(0.00577)	(0.00589)	(0.00698)	(0.00722)	(0.00702)	(0.00561)

Table A.20: Firms' and investors' PAC contributions − Staggered Difference-in-Difference − Reporting only Interaction Term Coefficients from Individual Regressions (continued)

By using the the last-treated observations as a control for the early-treated observations, this table presents a version of a staggered difference-in-difference estimation of the association between the PAC contributions by firms and their investors' PAC contributions at the congressional cycle − district level during the cycles around a large stock acquisition. Each of the rows provides the estimations of the interaction term, *Log(1+Investor PAC)* × 𝟙*(Post)*, from individual regressions following the same specification as the ones we have in our baseline regressions with the exception that we run the regressions by having only acquisitions that take place in the given cycle and the control group of pairs that will be treated at the end of the sample period (i.e., cycles 2016 and 2018). Specifically, the outcome variable is *Log (1+ Firm PAC)* and the independent variables are *Log(1+Investor PAC)* × 𝟙*(Post)*, *Log(1+Investor PAC)*, and 𝟙(Post). Fixed effects specifications vary by column and are reported at the end of the table. Standard errors are clustered at the firm×investor level.

Depend. Var.: **Log (1+ Firm PAC)**								
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**
Acquisition Cycle=1990	0.0441***	0.0442***	0.0430***	0.0396***	0.0432***	0.0458***	0.0275***	0.0234***
	(0.00439)	(0.00442)	(0.00376)	(0.00408)	(0.00424)	(0.00468)	(0.00431)	(0.00388)
Acquisition Cycle=1988	0.0371***	0.0373***	0.0369***	0.0336***	0.0361***	0.0380***	0.0221***	0.0192***
	(0.00434)	(0.00437)	(0.00365)	(0.00405)	(0.00397)	(0.00463)	(0.00408)	(0.00365)
Acquisition Cycle=1986	0.0350***	0.0351***	0.0340***	0.0313***	0.0355***	0.0352***	0.0220***	0.0192***
	(0.00399)	(0.00401)	(0.00340)	(0.00368)	(0.00368)	(0.00422)	(0.00384)	(0.00346)
Acquisition Cycle=1984	0.0357***	0.0358***	0.0332***	0.0328***	0.0376***	0.0363***	0.0228***	0.0200***
	(0.00425)	(0.00429)	(0.00343)	(0.00402)	(0.00392)	(0.00460)	(0.00401)	(0.00360)
Acquisition Cycle=1982	0.0460***	0.0460***	0.0397***	0.0423***	0.0477***	0.0467***	0.0297***	0.0234***
	(0.00421)	(0.00422)	(0.00355)	(0.00396)	(0.00403)	(0.00444)	(0.00412)	(0.00387)
Fixed Effects								
Firm	X				X	X	X	
Investor	X		X	X			X	
Congressional Cycle	X	X	X		X			
Congressional District	X	X		X		X		
Firm × Investor		X						X
Firm × Congressional District			X					X
Firm × Congressional Cycle				X				X
Investor × Congressional District					X			X
Investor × Congressional Cycle						X		X
Congressional Cycle × District							X	X

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table A.21: Firms' and investors' PAC contributions − Staggered Difference-in-Difference − Reporting only Interaction Term Coefficients from Individual Regressions − Index Cases

By using the the last-treated observations as a control for the early-treated observations, this table presents a version of a staggered difference-in-difference estimation of the association between the PAC contributions by firms and their index investors' PAC contributions during the cycles around a large stock acquisition. Each of the rows only reports the estimations of the interaction term, *Log(1+Investor PAC)* × 𝟙*(Post)*, from individual regressions following the same specification as the ones we have in our baseline regressions with the exception that we run the regressions by having only acquisitions that take place in the given cycle and the control group of pairs that will be treated at the end of the sample period (i.e., 2016 and 2018). Specifically, the outcome variable is *Log (1+ Firm PAC)* and the independent variables are *Log(1+Investor PAC)* × 𝟙*(Post)*, *Log(1+Investor PAC)*, and 𝟙(Post). Our index data starts only from the cycle 2000. Fixed effects specifications vary by column and are reported at the end of the table. Standard errors are clustered at the firm×investor level.

Depend. Var.: **Log (1+ Firm PAC)**								
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**
Acquisition Cycle=2014	0.0513***	0.0515***	0.0525***	0.0476***	0.0502***	0.0529***	0.0199***	0.0168***
	(0.00547)	(0.00547)	(0.00513)	(0.00490)	(0.00535)	(0.00528)	(0.00529)	(0.00477)
Acquisition Cycle=2012	0.0569***	0.0571***	0.0566***	0.0510***	0.0548***	0.0586***	0.0277***	0.0224***
	(0.00525)	(0.00527)	(0.00477)	(0.00493)	(0.00506)	(0.00513)	(0.00499)	(0.00457)
Acquisition Cycle=2010	0.0590***	0.0593***	0.0572***	0.0532***	0.0558***	0.0593***	0.0307***	0.0231***
	(0.00892)	(0.00898)	(0.00750)	(0.00814)	(0.00870)	(0.00930)	(0.00903)	(0.00775)
Acquisition Cycle=2008	0.0463***	0.0467***	0.0479***	0.0420***	0.0434***	0.0463***	0.0169**	0.0131**
	(0.00722)	(0.00727)	(0.00603)	(0.00650)	(0.00671)	(0.00699)	(0.00686)	(0.00556)
Acquisition Cycle=2006	0.0311***	0.0314***	0.0333***	0.0281***	0.0285***	0.0329***	0.00942**	0.00709
	(0.00541)	(0.00542)	(0.00508)	(0.00495)	(0.00531)	(0.00533)	(0.00453)	(0.00431)
Acquisition Cycle=2004	0.0410***	0.0412***	0.0410***	0.0399***	0.0386***	0.0441***	0.0193***	0.0166***
	(0.00522)	(0.00525)	(0.00453)	(0.00508)	(0.00523)	(0.00566)	(0.00527)	(0.00480)
Acquisition Cycle=2002	0.0323***	0.0327***	0.0334***	0.0305***	0.0301***	0.0325***	0.0117*	0.0100*
	(0.00700)	(0.00706)	(0.00617)	(0.00636)	(0.00705)	(0.00715)	(0.00627)	(0.00543)
Acquisition Cycle=2000	0.0570***	0.0571***	0.0571***	0.0513***	0.0557***	0.0583***	0.0264***	0.0210***
	(0.00690)	(0.00691)	(0.00635)	(0.00620)	(0.00673)	(0.00694)	(0.00729)	(0.00680)
Fixed Effects								
Firm	X				X	X	X	
Investor	X		X	X			X	
Congressional Cycle	X	X	X		X			
Congressional District	X	X		X		X		
Firm × Investor		X						X
Firm × Congressional District			X					X
Firm × Congressional Cycle				X				X
Investor × Congressional District					X			X
Investor × Congressional Cycle						X		X
Congressional Cycle × District							X	X

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table A.22: Firms' and investors' PAC contributions − One Post Period

This table presents the association between the PAC contributions by firms and their investors' PAC contributions at the congressional cycle − district level during the cycles around a large stock acquisition. The data are, therefore, at the investor − firm − congressional cycle − district level. 𝟙(Post) denotes observations that occur after the acquisition has occurred, but we restrict the post period to only a single cycle (i.e, only one cycle has post taking the value of one). The dependent variable is the logarithmic transformation of one plus the total dollar amount of PAC contributions the given firm gave to the incumbent in a given district during a given cycle, whereas the independent variable is the logarithmic transformation of one plus the total dollar amount of PAC contributions the given investor gave to the same politician during the same congressional cycle. Standard errors are clustered at the firm×investor level.

Dep. Var.: **Log(1+Firm PAC)**								
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**
Log(1+Investor PAC)×𝟙(Post)	0.0181***	0.0180***	0.0207***	0.0133***	0.0186***	0.0185***	0.0145***	0.0106***
	(0.00159)	(0.00160)	(0.00137)	(0.00134)	(0.00157)	(0.00159)	(0.00159)	(0.00119)
Log(1+Investor PAC)	0.0514***	0.0517***	0.0430***	0.0489***	0.0591***	0.0526***	0.0447***	0.0433***
	(0.00129)	(0.00130)	(0.000939)	(0.00122)	(0.00127)	(0.00130)	(0.00128)	(0.00121)
𝟙(Post)	0.00270***	0.00154***	0.00276***	-0.002***	0.00261***	0.00220***	0.00318***	-0.001***
	(0.000378)	(0.000404)	(0.000370)	(0.000143)	(0.000376)	(0.000420)	(0.000376)	(0.000117)
Fixed Effects								
Firm	X				X	X	X	
Investor	X		X	X			X	
Congressional Cycle	X	X	X		X			
Congressional District	X	X		X		X		
Firm × Investor		X						X
Firm × Congressional District			X					X
Firm × Congressional Cycle				X				X
Investor × Congressional District					X			X
Investor × Congressional Cycle						X		X
Congressional Cycle × District							X	X
N	320,702,805	320,702,805	320,696,902	320,702,805	320,684,134	320,702,805	320,702,805	320,678,186
R^2	0.029	0.029	0.117	0.035	0.029	0.029	0.036	0.137

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table A.23: Firms' and investors' PAC contributions − One Post Period Indexers

This table presents the association between the PAC contributions by firms and their index investors' PAC contributions at the congressional cycle − district level during the cycles around a large stock acquisition. The data are, therefore, at the investor − firm − congressional cycle − district level. 𝟙(Post) denotes observations that occur after the acquisition has occurred, but we restrict the post period to only a single cycle (i.e, only one cycle has post taking the value of one). The dependent variable is the logarithmic transformation of one plus the total dollar amount of PAC contributions the given firm gave to the incumbent in a given district during a given cycle, whereas the independent variable is the logarithmic transformation of one plus the total dollar amount of PAC contributions the given index investor gave to the same politician during the same congressional cycle. Standard errors are clustered at the firm×investor level.

Dep. Var.: **Log(1+Firm PAC)**								
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**
Log(1+Investor PAC)×𝟙(Post)	0.0221***	0.0224***	0.0273***	0.0188***	0.0240***	0.0213***	0.0121***	0.0100***
	(0.00301)	(0.00303)	(0.00266)	(0.00268)	(0.00297)	(0.00302)	(0.00291)	(0.00229)
Log(1+Investor PAC)	0.0429***	0.0429***	0.0413***	0.0405***	0.0538***	0.0437***	0.0339***	0.0335***
	(0.00268)	(0.00269)	(0.00201)	(0.00245)	(0.00258)	(0.00264)	(0.00264)	(0.00229)
𝟙(Post)	-0.00177	-0.002*	-0.002*	-0.003***	-0.00206	-0.003*	-0.00035	-0.001***
	(0.00146)	(0.00153)	(0.00145)	(0.000366)	(0.00147)	(0.00168)	(0.00144)	(0.000303)
Fixed Effects								
Firm	X				X	X	X	
Investor	X		X	X			X	
Congressional Cycle	X	X	X		X			
Congressional District	X	X		X		X		
Firm × Investor		X						X
Firm × Congressional District			X					X
Firm × Congressional Cycle				X				X
Investor × Congressional District					X			X
Investor × Congressional Cycle						X		X
Congressional Cycle × District							X	X
N	36,024,856	36,024,856	36,024,456	36,024,856	36,024,171	36,024,856	36,024,856	36,023,797
R^2	0.033	0.033	0.105	0.040	0.035	0.034	0.044	0.130

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

A.8 Appendix Figures

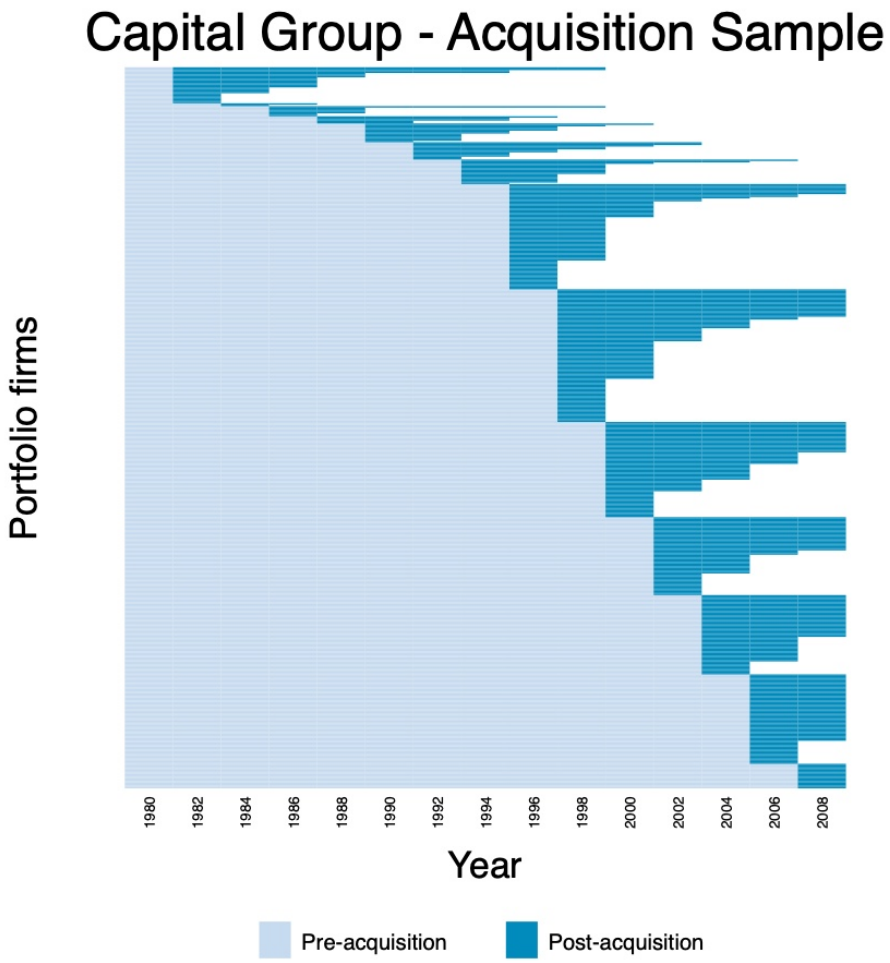

Figure A.1: Visualization of $\mathbb{1}$(Post) indicator for acquisition sample

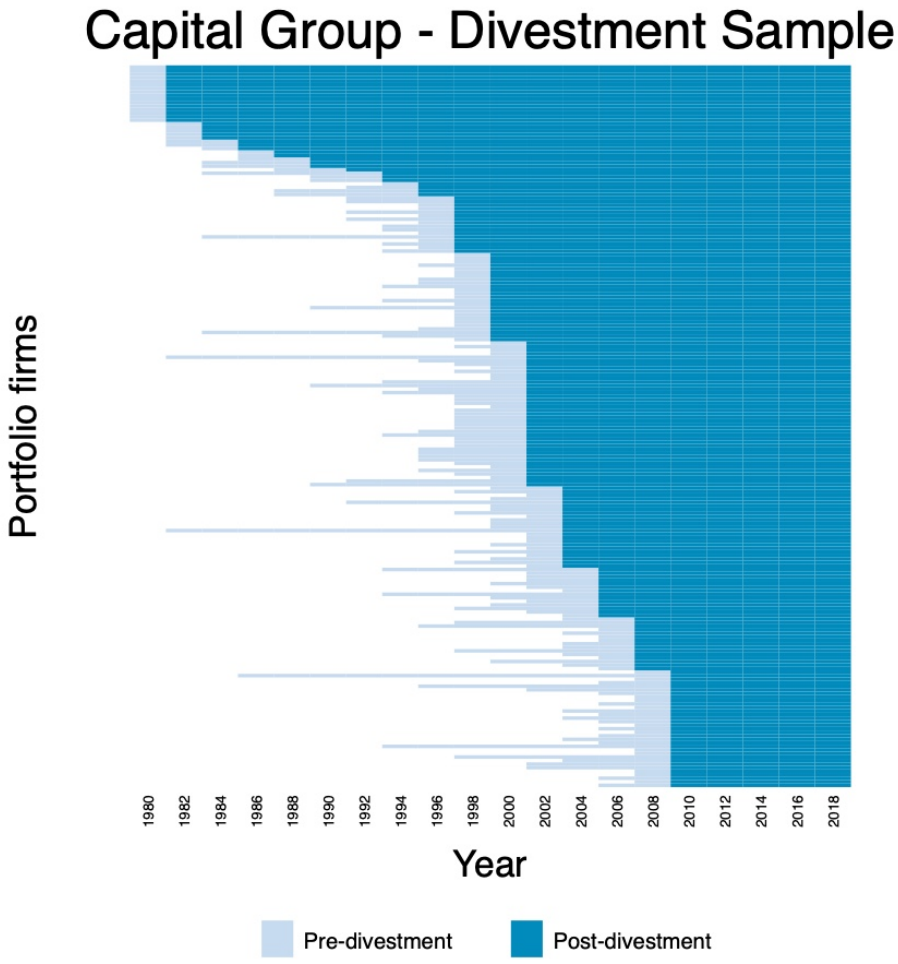

Figure A.2: Visualization of $\mathbb{1}$(Post) indicator for divestment sample

Figure A.3: Coefficient estimate of cosine similarity between firm and investor PAC giving using an event study approach

This figure represents how the association between firm and investor PAC giving changes during election cycles around the acquisition. Specifically, it plots the estimated coefficients δ_s in the regression equation: $Cos(x_{i,t}, x_{f,t}) = \sum_{s=-3}^{5} \delta_s Cycle\_s_{i,f,t} + \upsilon_i + \omega_f + \phi_t + \epsilon_{i,f,t}$ where $Cycle\_s_{i,f,t} = \mathbb{1}(t - a(i,f) = s)$ is an indicator function that marks the s^{th} cycle after (or before) acquisition cycle $a(i,f)$ and $s \in \{-3, -2, 0, ..., 5\}$ and υ_i, ω_f and ϕ_t represent investor, firm and cycle fixed effects. The same exercise is done using only the index induced acquisitions. We normalize $\delta_0 = 0$. Standard errors are clustered at the firm and investor levels.

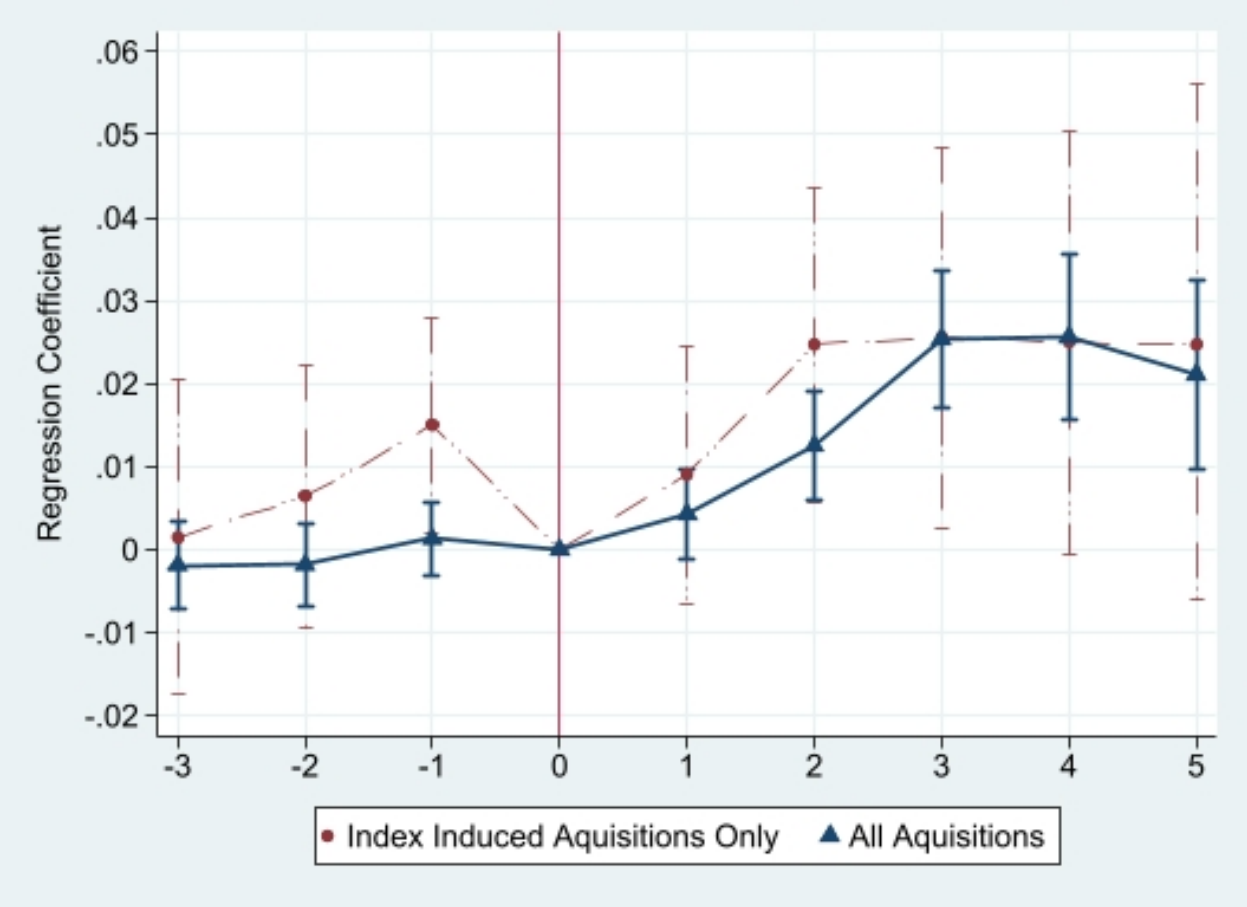

Figure A.4: Distribution of coefficients by dropping largest asset managers