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## Abstract

Institutional ownership of U.S. corporations has increased ten-fold since 1950. We examine whether these new concentrated owners influence portfolio firms' political activities, as a window into the larger question of whether institutional investors can wield their control to extract benefits from portfolio firms. 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 investment management company (in our preferred specification, a 31 percent increase in comovement). This pattern is observed for acquisitions driven by new index inclusions, which suggests that our findings result from a causal effect of acquisitions rather than other correlated shifts in political agendas. We argue that investors drive the convergence in giving - the effects are driven by more "partisan" investors, and we show that firms shift their giving more around acquisitions than investors do. Overall, our findings suggest that corporations' political business strategies are likely dictated by broader considerations than simple profit, and modeling corporate influence should take into account how corporations are governed.

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

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Raymond Fisman, Francesco Trebbi, and Eyub Yegen\*

January 2023

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Institutional ownership of U.S. corporations has increased ten-fold since 1950. We examine whether these new concentrated owners influence portfolio firms' political activities, as a window into the larger question of whether institutional investors can wield their control to extract benefits from portfolio firms. 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 investment management company (in our preferred specification, a 31 percent increase in comovement). This pattern is observed for acquisitions driven by new index inclusions, which suggests that our findings result from a causal effect of acquisitions rather than other correlated shifts in political agendas. We argue that investors drive the convergence in giving - the effects are driven by more "partisan" investors, and we show that firms shift their giving more around acquisitions than investors do. Overall, our findings suggest that corporations' political business strategies are likely dictated by broader considerations than simple profit, and modeling corporate influence should take into account how corporations are governed.

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# 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 fraction 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. Much of the current debate is 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 the one hand, 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, 2021a; 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, these passive institutional investors may still hold sway. Famously, after BlackRock CEO Larry Fink urged chief executives to “make a positive contribution to society” in 2018, the financial press observed that BlackRock could apply pressure even via its index fund holdings, which gave BlackRock (and Fink as its CEO) enough ownership to affect votes on board appointments or other agenda items of relevance to top managers.<sup>1</sup>

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

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<sup>1</sup>The letter may be found here: <https://www.blackrock.com/corporate/investor-relations/larry-fink-ceo-letter> (last accessed December 12, 2022). 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.

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 (and senior management may themselves feel entitled to such wining and dining), 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 influence. Furthermore, by exploring the extent to which institutional investors influence the political strategy of portfolio firms, we offer a window into the extent to which such investors – even index funds that have as their primary objective tracking the returns of a benchmark portfolio – have the potential to impact the management of firms in which they hold significant stakes.

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 large 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 in that firm. Our sample is comprised of 574 13-F institutional investors (those with at least \$100 million in assets under management), that collectively manage as much as \$30 trillion in public equity during our sample period, which are matched to information on 2456 firms that were in their collective portfolios at any point during the period 1980-2018.

In a first set of results, which includes all institutional investor types and all first acquisitions of one percent or more of outstanding shares, 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 serious identification problems due to omitted confounders that may drive political giving (Stratmann, 2005). In our setting, acquisitions could be driven by unobserved factors that are correlated with a convergence in the interests and policies 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 investment fund that attracted attention for its campaign to replace ExxonMobil board members) 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 unaffected 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 exogenously driven 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 observed for block purchases that result from such index inclusions among index investors. We also 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 or Wilshire 5000.<sup>2</sup> We thus suggest that particularly in this subsample, the post-acquisition increase in comovement of fund-firm PAC giving is unlikely to reflect the preferences of fund investors, who are the ultimate shareholders.<sup>3</sup> As such, our findings suggest a possible corporate governance problem, in the form of a mismatch between shareholder political preferences and fund influence on political giving.

We then turn to 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’ own political giving. To do this, we construct cosine similarity measures for each entity

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<sup>2</sup>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.

<sup>3</sup>We see the most important exception as funds that track Environmental, Social, and Governance (ESG) indices, which screen out firms based on their societal impact. Our index fund findings are robust to excluding ESG funds.



(firm or investor) between adjacent election cycles around the acquisition. Intuitively, these persistence 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 converse to be true. We show that investor cosine similarity across periods is higher in general than that of firms, including in periods around acquisitions. More importantly, we observe that around the block purchase election cycle (i.e., the “event date”) 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.

It is possible that this influence takes place without any direct efforts on the part of institutional investors – for example, portfolio companies may cater to investors’ preferences (political or otherwise) in hopes of gaining their support, for example in important votes at shareholder meetings. However, consistent with a more active voice from institutional investors, we show that the correlation in political giving increases even more sharply after an investor gets a seat on the board. In particular, in a specification that captures both the board seat and acquisition effects, the effect of an acquisition with a board seat is more than three times that of an acquisition alone.

Our results to this point 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. We cannot, however, speak to the nature of the benefits that asset managers may obtain by amplifying their political preferences. These may be financial, if the PAC giving of institutional investors is driven primarily by their attempts to influence the legislative and regulatory process to increase their profits. But the benefits could be non-pecuniary, to the extent that institutional investors’ PAC giving reflects the personal preferences of their managers and owners. It is difficult to distinguish between these two possibilities, and we offer only suggestive evidence based on heterogeneity analyses. We find, in particular, that the increased correlation between investor and firm political giving post-acquisition is more pronounced for investors that are more partisan in their PAC political giving (we observe this pattern in both the full sample and the subsample of index-based purchases). To the extent that such partisanship diverges from the optimal political influence that may be exerted on lawmaking and regulatory processes (e.g., the vast majority of corporations give substantial amounts to both the right and the left to hedge their political bets), this result suggests an amplification of the personal politics of those that run asset management companies.

We opened with the observation that institutional investors hold an ever-larger share of publicly traded firms. This trend was accompanied by an increase of nearly a factor of six in total

expenditure on political activity by the firms in our sample, for the years 1980-2018. While there are surely many factors that contribute to these patterns, we conclude with a set of results which suggest that increased institutional investment may be at least in part responsible for the expansion in corporate political giving. We show that higher institutional ownership is associated with an increase in giving by the firm, and furthermore that this expansion is unrelated to portfolio firms' own financial interests, insofar as it generally does not go to members of committees lobbied by the portfolio firm. These final results further reinforce the view that the ownership-driven shifts in political donations may not serve to increase firm profits, and hence may not be in the interests of institutional investors' clients.

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; as such, our work introduces the role of a new and potential important actor to discussions of money in politics.

More broadly, our paper contributes to a large literature, active in both economics and political science, that studies the determinants and consequences of corporate PAC giving and corporate political influence on government policy, as well as a broader policy 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](#); [Fos et al., 2021](#)), 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.<sup>4</sup> The benchmark of corporate political “speech” driven solely by profit may, however, be an idealized view of how corporations are governed. Instead, a firm's resources may serve the interests of top managers, large shareholders, or board members, potentially at the expense of shareholder profits. To the extent that previous researchers have considered the role of stakeholders in driving PAC giving, it has largely been to document the level and composition of campaign finance expenditures by firm executives and board members and their correlation with firm PAC giving ([Bonica, 2016](#); [Richter and Werner, 2017](#)).

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

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<sup>4</sup>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.”

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](#)). On the one hand, our work speaks to this literature to the extent that we show institutional investors, even those that have as their main objective to simply track index returns, influence decisions at portfolio firms. While we focus on the political margin of firm decisions, our findings indicate the *potential* for asset managers to exercise influence – derived from their ever-larger holdings – more generally. On the other hand, our work could be viewed as being at odds with prior literature in that the influence activities we document are not aligned with institutional investors' fiduciary duty to their clients. To the contrary, our findings suggest that these investors may leverage the control they inherit as agents to their clients to seek their own benefits. Finally, 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.

Recent work has shown that 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](#)) whereas we observe the influence of passive investors as well. Our findings suggest that even index-based investor preferences matter, a point that some recent work has cast particular doubts on ([Heath et al., 2022](#)). Furthermore, 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 fund managers. To the extent that scholars have considered the use of control to serve the fund at the expense of portfolio firms, the focus has been on the anticompetitive effects of common ownership, which remains a much-debated topic ([Azar and Vives, 2021b](#); [Backus et al., 2019](#); [Boller and Morton, 2020](#)).

The paper is organized as follows. Section 2 describes the sources of data for institutional ownership and political giving and the main variables used in the analysis. Section 3 presents our main empirical results on corporate electoral donations. Section 4 then investigates the nature of

the political influence at play in the data. Section 5 concludes.

## 2 Data and variable 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 that time period and that can be matched to 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.<sup>5</sup> 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.<sup>6</sup> For the pre-2012 period, we manually obtain the missing holdings data directly from SEC Edgar. We follow the approach of [Lewellen and Lewellen \(2018\)](#) and aggregate the holdings data to the level of the fund family (e.g., we aggregate all 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.<sup>7</sup>

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.<sup>8</sup> We identify 574 investors with a PAC and 2,456 portfolio firms with a PAC. Having created a link from firms and

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<sup>5</sup>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.

<sup>6</sup>The code provided by WRDS may be accessed via [https://wrds-www.wharton.upenn.edu/documents/533/Research\\_Note\\_-\\_Thomson\\_S34\\_Data\\_Issues.pdf](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.

<sup>7</sup>These correspond to 67,342 unique historical CUSIP codes because a firm can change CUSIP over time.

<sup>8</sup>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.

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.<sup>9</sup> 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. \(2020\)](#).<sup>10</sup> This process creates two datasets on political giving: one at the investor-congressional-district-election-cycle level, and the other at the portfolio firm-congressional-district-election-cycle level. Investors and portfolio firms without PACs are excluded from these datasets.

Finally, to construct our primary dataset, we take the Cartesian product of the investor and portfolio firm datasets. For computational reasons, we only include in this Cartesian product firm-investor pairs that become linked at some point over the sample period by a large acquisition event, the key source of variation we will leverage in our empirical analysis.<sup>11</sup>

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. 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 a given election cycle.<sup>12</sup> This yields a large and sparse matrix of investor-firm-congressional districts observations for each cycle (since many constituencies receive zero donations from firms and/or investors in a given cycle).

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. \(2015\)](#).<sup>13</sup>

We follow [Bushee \(2001\)](#) to determine whether a given institutional investor is a passive investor (i.e., indexer or quasi-indexer), using the permanent investor classification data.<sup>14</sup> To identify

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<sup>9</sup>For years prior to the creation of a PAC we assign zero campaign contributions to the firm or investor.

<sup>10</sup>The MIT Election Data are available at <https://electionlab.mit.edu/data>, last accessed December 12, 2022.

<sup>11</sup>The Cartesian product of all portfolio firms (2,456), investors (9,639), constituencies (435) and cycles (19) would produce a dataset with roughly 196 billion observations. Hence, we restrict the sample to large events in which at least one percent of outstanding shares of firms with a PAC are acquired by institutional investors that had no prior ownership in the given firm.

<sup>12</sup>An investor-firm pair is included in the Cartesian product even if there are subsequent acquisitions and/or subsequent disinvestments.

<sup>13</sup>Boardex data may be downloaded from <https://wrds-www.wharton.upenn.edu/pages/get-data/center-research-security-prices-crsp/> with a WRDS subscription.

<sup>14</sup>Available at <https://accounting-faculty.wharton.upenn.edu/bushee/>, last accessed December 12, 2022.

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.<sup>15</sup>

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 indices that are available via CRSP and ETF Global.<sup>16</sup> There are approximately one thousand indices in our investors’ portfolios.

## 2.2 Variable definitions

In our baseline test, 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 of firm’s PAC<sub>cft</sub>* is the logarithmic transformation of one plus total PAC giving by firm  $f$  to the politician representing congressional district  $c$  in election cycle  $t$ . Similarly, *Log of investor’s PAC<sub>ict</sub>* is the logarithmic transformation of one plus the total PAC giving by investor  $i$  to the politician representing congressional district  $c$  election cycle  $t$ .<sup>17</sup> We alternatively create dummy variables to indicate any PAC giving to a congressional district by a portfolio firm or investor in a given election cycle.

We define an indicator variable  $Post_{fit}$  which equals 1 for all election cycles that follow the acquisition of at least one percent of portfolio firm  $f$  by investor  $i$ , as long as investor  $i$  has an ownership stake in firm  $f$ , and zero before the acquisition.<sup>18</sup>

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, which captures 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 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  $x_{j,t+1}$

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<sup>15</sup>See Brav et al. (2008) for additional details.

<sup>16</sup>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 WRDS subscription.

<sup>17</sup>In results not reported here but available upon request, we verify that our results are robust to using 0.0001 rather than 1 in the logarithmic transformation.

<sup>18</sup>For the divestment analysis in Section 3.2, we apply an analogous definition.  $Post_{fit}$  is equal to 1 for all cycles following the complete divestment of investor  $i$  in firm  $f$  and zero for the preceding cycles during which the investor had any share of ownership.

to measure the similarity in PAC giving across election cycles:

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

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,  $\text{Cos}(x_{j,t}, x_{j,t+1})$ , 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 (i.e., not all observations are zero), whenever the organization  $j$  gives no PAC money to any politician during either election cycle  $t$  or election cycle  $t+1$ ,  $\text{Cos}(x_{j,t}, x_{j,t+1})$  is undefined.

We similarly define investor-firm similarity in PAC giving in a given election cycle,  $\text{Cos}(x_{i,t}, x_{f,t})$ , as follows:

$$\text{Cos}(x_{i,t}, x_{f,t}) = \frac{x_{i,t} \cdot x_{f,t}}{\|x_{i,t}\| \|x_{f,t}\|} = \frac{\sum_{c=1}^n x_{i,t,c} \times x_{f,t,c}}{\sqrt{\sum_{c=1}^n x_{i,t,c}^2} \times \sqrt{\sum_{c=1}^n x_{f,t,c}^2}}$$

This investor-firm giving similarity measure is not defined when either the firm or the investor (or both) make no congressional PAC contributions in an election cycle.

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  $\text{Cos}(x_{f,t}, x_{f,t+1}) - \text{Cos}(x_{i,t}, x_{i,t+1})$ , the difference between the firm's and investor's changes in cosine similarity between election cycles. A negative sign (i.e.,  $\text{Cos}(x_{f,t}, x_{f,t+1}) < \text{Cos}(x_{i,t}, x_{i,t+1})$ ) 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.  $[\text{Cos}(x_{f,t}, x_{f,t+1}) - \text{Cos}(x_{f,t-1}, x_{f,t})] - [\text{Cos}(x_{i,t}, x_{i,t+1}) - \text{Cos}(x_{i,t-1}, x_{i,t})]$ . We also look at longer two-period differences (i.e.,  $[\text{Cos}(x_{f,t}, x_{f,t+2}) - \text{Cos}(x_{f,t-2}, x_{f,t})] - [\text{Cos}(x_{i,t}, x_{i,t+2}) - \text{Cos}(x_{i,t-2}, x_{i,t})]$ ), 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. 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 for whom we can see a first large acquisition event.

We present summary statistics in Table 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.

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 Bell Atlantic Asset Management Company that gives to 175 congressional districts in the average election cycle.

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 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 investors 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 (though not quite as wide as with 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. 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 a zero vector of PAC giving in either of two adjacent election cycles. Thus, the number of observations is lower in these analyses.

The final sample in our main analysis includes 68,387 large acquisition events (as defined above) in our dataset of which 5,601 are acquisitions by indexers when a firm is added into an index. The average fraction of shares acquired by a given institutional investor during such an event is 2.4 percent. The 25th and 75th percentile of ownership acquisition are 1.2 percent and 2.6 percent, respectively.

### 3 Results

#### 3.1 Ownership shock and co-movement in political giving: basic result

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:

$$\begin{aligned} \text{Log Firm PAC}_{f,t,c} = & \beta_1 \text{Log Investor PAC}_{i,t,c} \times \text{Post}_{i,f,t} + \beta_2 \text{Log Investor PAC}_{i,t,c} \\ & + \beta_3 \text{Post}_{i,f,t} + v_i + \omega_f + \gamma_c + \phi_t + \epsilon_{i,f,c,t} \end{aligned} \quad (1)$$

This regression includes fixed effects for each investor  $i$ , firm  $f$ , congressional district  $c$ , and election cycle  $t$ .  $Post_{ift}$  equals 1 for all election cycles after  $i$  has acquired its large stake in  $f$ , and an investor-firm pair remains in the sample (with  $Post = 1$ ) as long as the investor maintains any stake in the firm. The main coefficient of interest is  $\beta_1$ , the estimated change in the relationship between investor and firm PAC contributions following an acquisition. Standard errors are clustered at the firm  $\times$  investor level.<sup>19</sup>

We present the results in Table 2, with increasingly stringent specifications in terms of included fixed effects. Our preferred specification is that of column 8, which includes firm  $\times$  investor, firm  $\times$  congressional district, firm  $\times$  election cycle, investor  $\times$  congressional district, investor  $\times$  election cycle, and district  $\times$  election cycle fixed effects. These fixed effects address a series of plausible concerns. In particular, the firm  $\times$  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  $\times$  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  $\times$  district fixed effects address the possibility that some investors that give more to certain districts may be more likely to make acquisitions in firms that also give to these districts. The firm  $\times$  cycle and investor  $\times$  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. Finally, district  $\times$  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.

In all specifications in Table 2, the point estimate on  $\beta_1$  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  $\beta_1/\beta_2$ ).<sup>20</sup>

A more straightforward interpretation of the magnitude of the acquisition effect is provided by

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<sup>19</sup>In Appendix Table A1 we compute standard errors clustered two-way at the firm and investor level, with similar results.

<sup>20</sup>In Appendix Table A2, we obtain results similar to Table 2 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.

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 relatively low per-cycle and 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 Table 3. The point estimates are very similar to those of Table 2. 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 3 show that the probability of a portfolio firm giving to a particular congressional district increases by 1.3 – 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  $\beta_1/\beta_2$ ).

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 A3 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 2):

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

Note that these analyses are at the firm-district-election-cycle level. We measure investor interests 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.

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 2 alone. In the following sections, we explore the plausibility of these alternative interpretations.

### **3.2 Ownership shock and co-movement in political giving: 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 Tables 2 and 3, 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 that cannot be driven by individual investor or firm preferences.

To implement our 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  $f$ .<sup>21</sup> Our specification is as follows:

$$\text{Log Firm PAC}_{f,t,c} = \sum_{s=-3}^5 \beta_s \text{Log Investor PAC}_{i,t,c} \times \text{Cycle } s_{i,f,t} + \Omega + \epsilon_{i,f,c,t} \quad (3)$$

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

While an event study can allow 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 increasing share their political preferences going forward. Relatedly, it is also possible that firms cater to fund managers they wish to attract or, more importantly, to retain as large investors.

To further rule out these particular interpretations as the sole explanation for our findings, we also focus our analysis on the sample of large acquisition events to those resulting from new additions to the 1,000 or so indices in our sample of investors' portfolios. Upon inclusion of a firm in an equity index, many institutional investors rebalance 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 classify an index-inclusion acquisition as an event where a firm is both: (i) added to an index for the first time; and (ii) appears in an indexer's portfolio (an investor is classified as indexer or passive investor as in [Bushee, 2001](#)).<sup>22</sup>

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 2, but the pattern is virtually

<sup>21</sup>Note that acquisition quarter could occur any time within the two-year election cycle window.

<sup>22</sup>We performed a similar exercise restricting the definition to condition (i), and obtain results that are virtually identical to those reported below.

identical for other specifications.

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. In contrast, we observe a slight pre-trend for the full sample, with some convergence in giving even before the acquisition takes place. This suggests that a convergence in interests may partly drive acquisitions outside of the index sample, or 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 4 we report the analogous results to Table 2 for the index inclusion sample. Across all eight specifications, the findings are very similar to those of Table 2. For instance, the parameter estimate for  $\beta_1$  in the restrictive column 8 of Table 2 is 0.0135, while the corresponding estimate in column 8 of Table 4 is 0.0132. Also, as shown in Appendix Table A4, the point estimates are near-identical for both the full and index-based samples when we use the discrete version of the specification. For both the continuous and discrete specifications, 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. This rules out a substantial role for endogenous drivers of acquisitions in biasing our baseline estimates.

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*,  $\beta_2$ , is positive, in all specifications. It is easy to see why this might be the for the first six columns, which do not include cycle  $\times$  district fixed effects – in the absence of this set of controls,  $\beta_2$  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  $\beta_2$  point estimate falls with the inclusion of these controls, 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 of which mostly is public equity. When we focus in Table A5 on these pure “generalists” we find that the  $\beta_2$  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.

Table 5 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 election cycle (the post-period). We document the opposite patterns from those observed in Table 2. 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 A6, and in Figure 3 we plot the coefficients of an event study regression comparable to that of equation (3), where *Cycle  $s_{i,f,t}$*  now marks time since divestment, rather than since acquisition. Figure 3 shows a clear decline in the correlation between firm and investor political giving after divestment takes place.

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) and it is an important check to add to our analysis. Specifically, in Table 6 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:

$$Fraction\ to\ Republicans_{f,t,c} = \beta Fraction\ to\ Republicans_{i,t,c} \times Post_{i,f,t} + v_i + \omega_f + \gamma_c + \phi_t + \epsilon_{i,f,c,t}, \quad (4)$$

where the fixed effects mirror those of equation (1). The coefficient of interest,  $\beta$ , takes on a value of 0.028, 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 2.8 percentage points, equivalent to a 5.9 percent increase. Interestingly, the coefficient on *Investor’s Fraction to Republicans* is also highly significant, indicating a partisan matching between investors and the firms they own, possibly reflecting, for example, a match based on geography or industry (in addition to a shared ideology).

### 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. 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' 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  $\delta_s$  parameters capture how firm-investor cosine similarity evolves around the acquisition date:

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

where, as before,  $Cycle\ s_{i,f,t} = \mathbf{1}(t - a(i, f) = s)$  is an indicator function that marks the  $s^{th}$  cycle after (or before) acquisition cycle  $a(i, f)$  and  $s \in \{-3, -2, 0, \dots, 5\}$ . 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 3, for the full sample and also for the subsample of acquisitions based on index inclusions used in Table 4. 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.

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 3, 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 7, 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 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  $[Cos(x_{i,t}, x_{i,t+1}) - Cos(x_{i,t-1}, x_{i,t})] - [Cos(x_{f,t}, x_{f,t+1}) - Cos(x_{f,t-1}, x_{f,t})]$ . 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 in 1 and 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.

### 3.4 A channel of influence: the role of board membership

The preceding sections focused on documenting that acquisitions lead firms’ political giving to converge to that of their institutional investors, without providing any evidence on how or why this convergence may occur in practice. Communications between institutional investors and firms – “engagements” as Coates (2018) calls them – are not infrequent. Coates (2018) states: “Their staffs “meet” – sometimes in person, more often by phone, sometimes just by email – with representatives of their portfolio companies.” As far as we know, it is impossible to quantify the frequency and content of these meetings, but it is possible that in communicating investors’ preferences on various management and corporate issues, the topic of political engagement 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.

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 2, augmented with both the direct effect of board representation (captured by the variable *Board*) and its interaction with *Log Investor PAC*. These results appear in Table 8.

The coefficients on the interaction terms *Post*×*Log Investor PAC* and *Board*×*Log Investor PAC* are both positive and estimated with precision ( $p < 0.001$ ). The *Board* interaction is, in our favored specification of column 8, more than twice as large as that of the *Post* interaction, indicating that the convergence in political giving is much stronger for acquisitions that involve a seat on the board of the portfolio firm. These results provide a plausible channel through which investors may influence firm political giving, and one which is observable to us. We see these findings as bolstering our interpretation of the acquisition results as most likely resulting from investors influencing firm decision-making, and also suggesting at least one mechanism through which this may occur. For the sake of completeness, we also report in Appendix Table A7 the results based on the discrete versions of the PAC giving variables around the establishment of board connections.

## 4 The nature of influence

The evidence thus far points to the influence of institutional investors on the political giving of portfolio firms. There are several interpretations of such influence, and in this section we employ several distinct approaches to understand the nuances of this general finding. Specifically, we attempt to evaluate whether the convergence we observe is a reflection of a change in overall business strategy imparted by the new investor, or whether it is due to a shift in the firm’s political contributions to those preferred by an investor for taste-based (non-strategic) reasons. Additionally, we offer an approach to detecting whether investor influence causes firms to add new recipients of their PAC giving, or to substitute away from previously-supported politicians – who may be related to their business interests – toward other, less business-relevant ones.

## 4.1 Heterogeneity across investor types

In this subsection we employ heterogeneity analysis to shed light on 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.

We first consider a split of investors based on whether they are privately or publicly owned. The latter includes fund families 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. This is a point we return to shortly, when we focus on partisanship in giving.

The results appear in Table 9.<sup>23</sup> 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 main specification in Table 2 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 *Post* is significant at the 1 percent level for both subsamples, 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.

A second approach to capturing heterogeneity in taste versus business strategy concerns is the extent of partisanship in an investor’s political donations. 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. 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 or relevant committees, or those involved in crafting potentially important legislation. To implement this split, we classify investors as *More Partisan* if  $|D/(D+R)-0.5|$  is above the sample mean, where  $D$  and  $R$  are overall PAC donations to Democrats and Republicans respectively.<sup>24</sup> 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 is 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

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<sup>23</sup>In Appendix Table A8 we further break down the results by type of investor and find that Investment Advisors and Investment Companies, such as State Street and Fidelity, together with Bank Trusts, like JPMorgan Chase and Bank of America, drive the results we have uncovered so far.

<sup>24</sup>The number of observations is larger in column 4 because *Less Partisan* investors are involved in significantly more acquisitions.

increases by 23.5 percent. The comparable figure for a *Less Partisan* investor is 7.6 percent.

Collectively, the results in this subsection provide suggestive evidence that the political preferences of investors, rather than the collective profits of an investor’s portfolio of companies, are more plausibly responsible for the shift in PAC giving of firms after large acquisitions.

## 4.2 Investor influence on firm political strategy

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 in order to cater to investors’ tastes. As we explain below, this will require that we bring in additional data about the types of politicians that firms target with their contributions in Section 4.2.2.

### 4.2.1 Institutional ownership and PAC giving overall

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 two columns of Table 10, we present the relationship between institutional ownership and overall PAC giving at the firm-year level. In the first column, we include year fixed effects, while in the second column we include firm effects, so the relationship is identified from within-firm shifts in ownership. In both 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.

### 4.2.2 Diversion of firm political resources

In our final analysis, we explore whether the 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 strategically important those politicians who sit on congressional committees overseeing issues on which a firm actively lobbies. The identification of these politicians can be obtained by noticing that lobbying reports available from the Senate Office of Public Records (and fielded on behalf of the firm by lobbyists) 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.<sup>25</sup>

We present results relating overall institutional ownership to the amount given to strategically important politicians in the second two columns of Table 10, with specifications that include industry and year fixed effects (column 3) and firm and year fixed effects (column 4). The point estimates in both cases are negative, but particularly in the specification in column 4 that includes firm fixed effects, the point estimate is very close to zero, albeit imprecisely estimated. In the final two columns of Table 10, we repeat this exercise, using instead the fraction of total PAC giving devoted to politicians on relevant committees. The coefficient on institutional ownership is negative and marginally significant ( $p < 0.10$ ) in our preferred specification in column 6. Overall, these results are consistent with no change in giving to politicians relevant for firm profitability (as captured by committee membership) as institutional ownership increases, but rather with an increase in non-strategic giving – which expands the denominator for the dependent variable in columns 5 and 6. Consequently, our interpretation is that, as firms are acquired, they may add to their roster of PAC beneficiaries, but that these new politicians are not displacing “strategically relevant” politicians – rather, the net result is that firms devote more resources to political giving after a large block purchase.

## 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 broader issue of the governance role of institutional investors in general, and also for our understanding of the

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<sup>25</sup>Membership of each congressional committee is available through [Stewart III and Groseclose \(1999\)](#) and subsequent updates of the original data.

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. For investors required to hold indexes, such acquisitions are orthogonal to political alignment of the ensuing block purchase. Our results are confirmed using this identification strategy. While we focus on PAC contributions because they are relatively easy for us to observe as researchers, it is very plausible that institutional owners may exert similar control over other forms of political activity, but we leave this to future research.

Overall, the evidence indicates that institutional investors exert influence over the behavior of portfolio firms, which may have relevance, for example, in the ongoing debate over the consequences of common ownership, and raises concerns over the influence of a small collection of fund 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]eimbursement for a contribution or otherwise contributing in the name of another person can result in substantial civil penalties and jail time”;<sup>26</sup> 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.

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.*”<sup>27</sup>

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.

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<sup>26</sup> “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/>

<sup>27</sup> 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.

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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 Additional robustness

### A.1 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 A3, we find a positive association between investor and firm PAC giving.

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  $\beta_s$  in regression equation (3):  $\text{Log}(1 + \text{Firm PAC}_{f,t,c}) = \sum_{s=-3}^5 \beta_s \text{Log}(1 + \text{Investor PAC}_{i,t,c}) \times \text{Cycle } s_{i,f,t} + \Omega + \epsilon_{i,f,c,t}$  where  $\text{Cycle } s_{i,f,t} = \mathbb{1}(t - a(i, f) = s)$  is an indicator function that marks the  $s^{\text{th}}$  cycle after (or before) acquisition cycle  $a(i, f)$  and  $s \in \{-3, -2, 0, \dots, 5\}$  and  $\Omega$  is the set of fixed effects in column 8 of Table 2 (firm  $\times$  investor, firm  $\times$  congressional cycle, firm  $\times$  congressional district, investor  $\times$  congressional cycle, investor  $\times$  congressional district, and congressional district  $\times$  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 and investor levels.

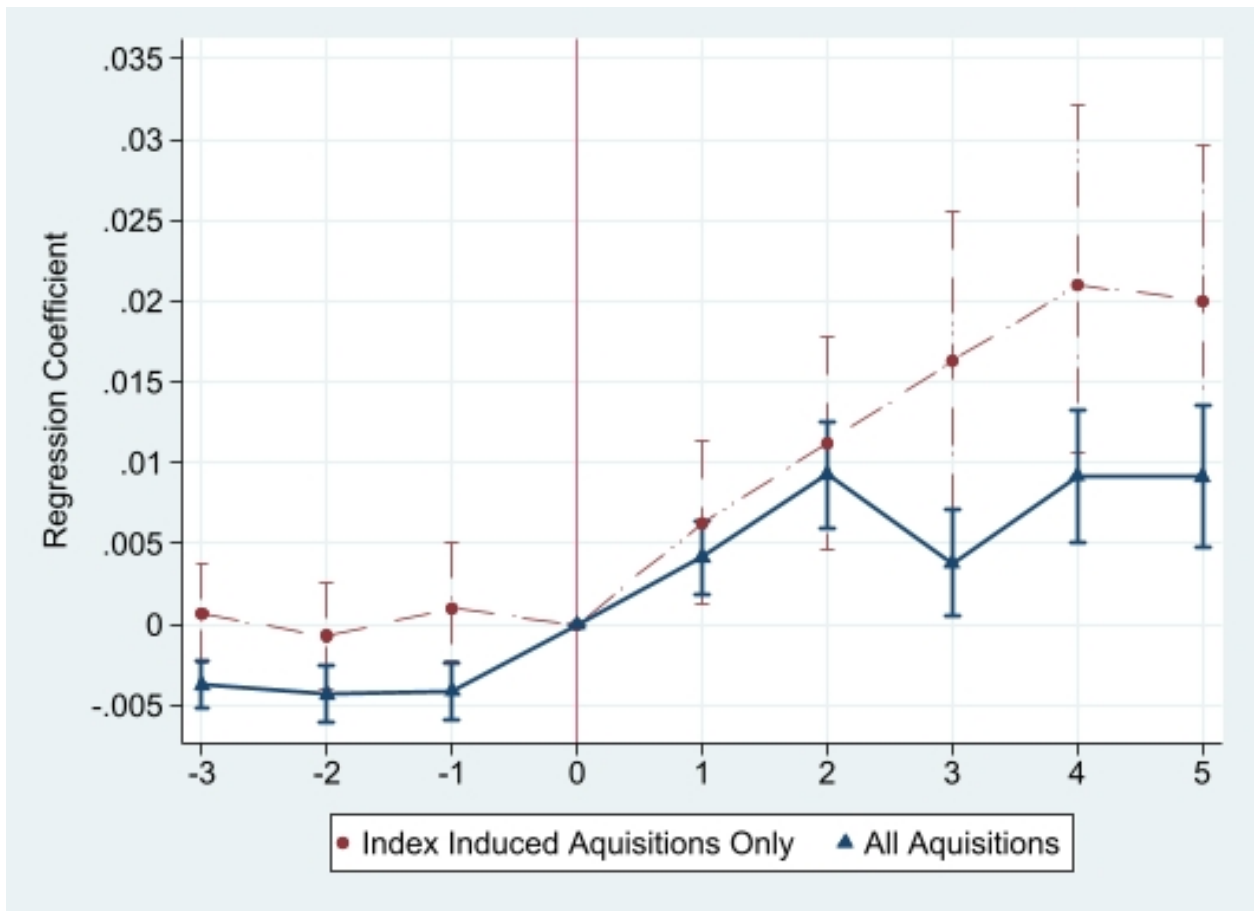


Figure 2: Coefficient estimate of cosine similarity between firm and investor PAC giving using an event study approach

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  $\delta_s$  in regression equation (5):  $Cos(x_{i,t}, x_{f,t}) = \sum_{s=-3}^5 \delta_s Cycle_{s,i,f,t} + v_i + \omega_f + \phi_t + \epsilon_{i,f,t}$  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  $s \in \{-3, -2, 0, \dots, 5\}$  and  $v_i$ ,  $\omega_f$  and  $\phi_t$  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.

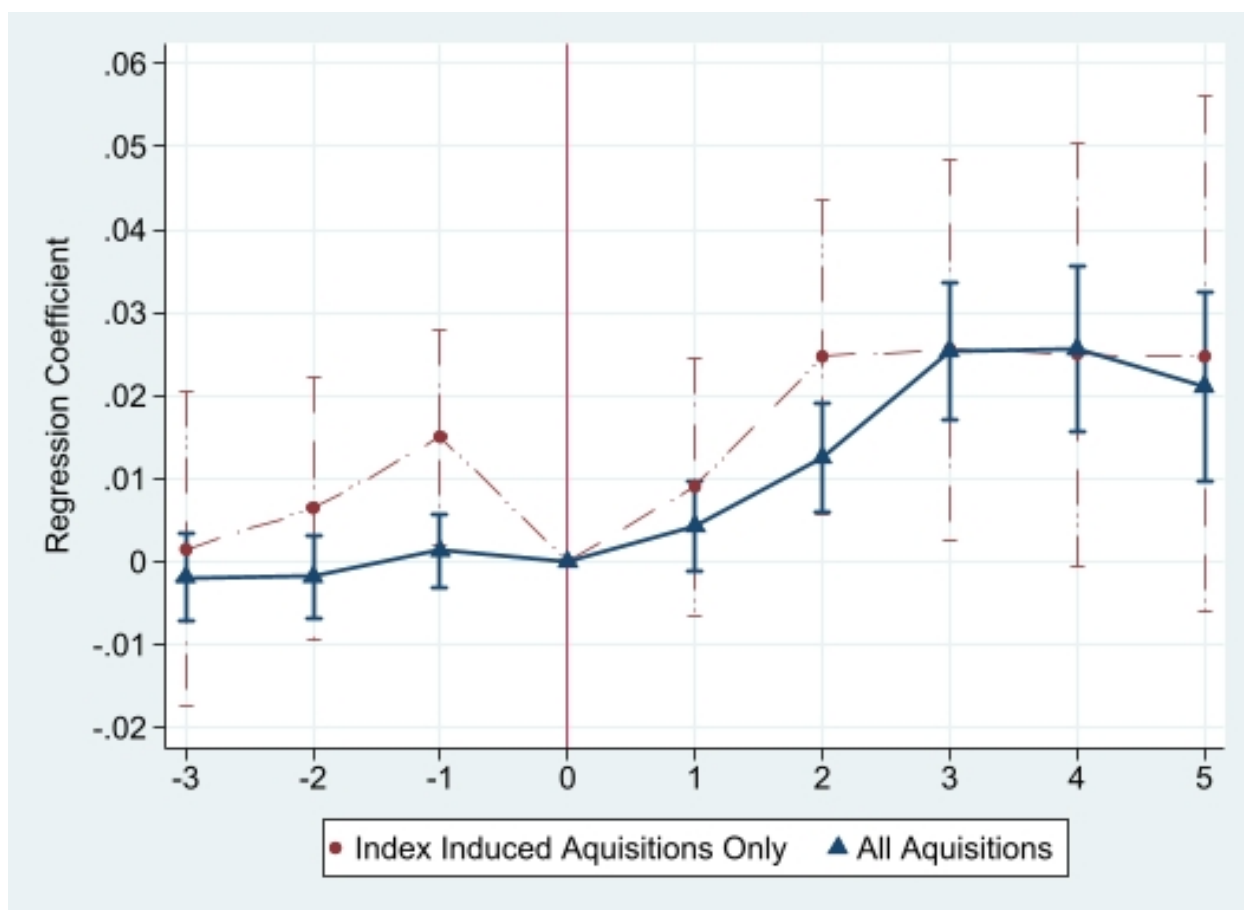
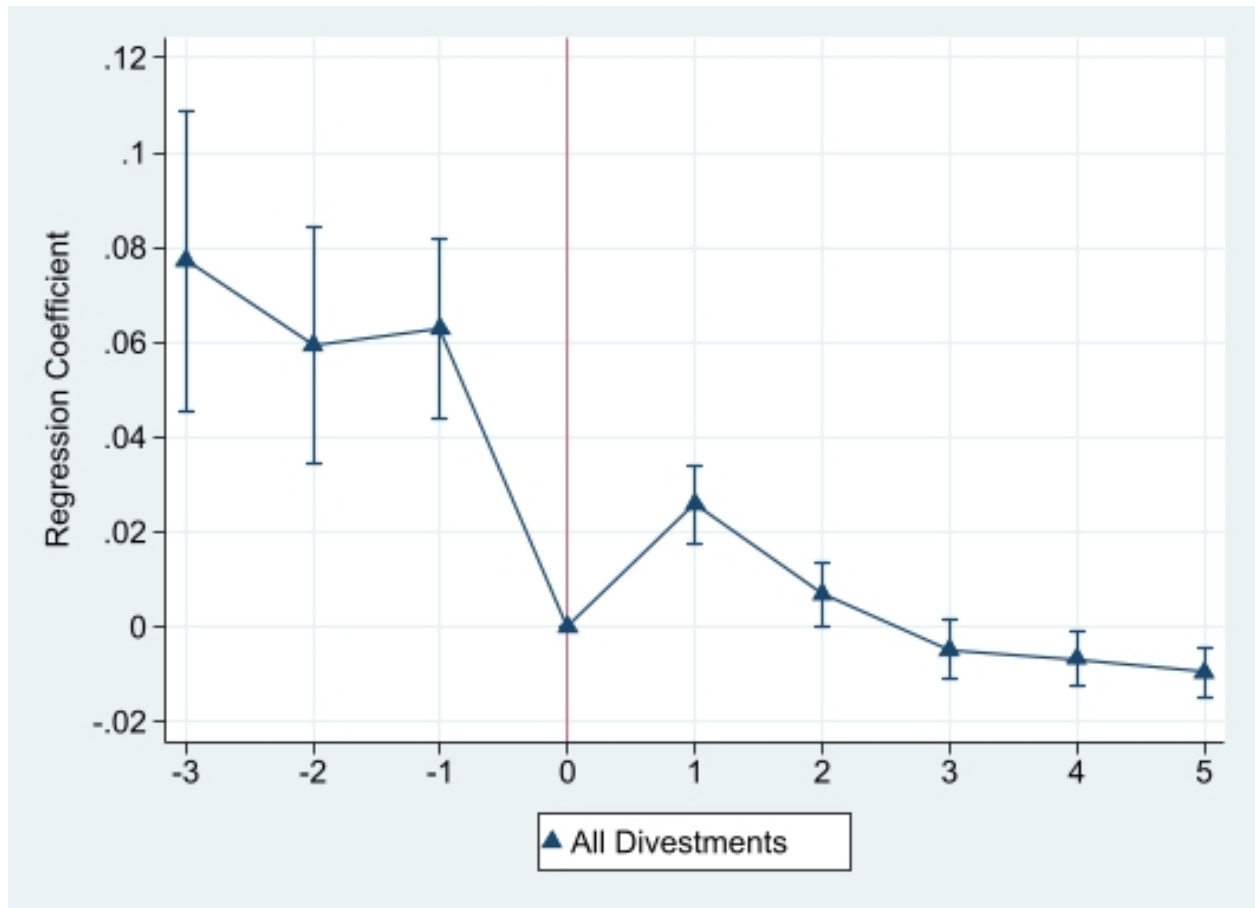


Figure 3: Firm and investor PAC giving: Divestment event study

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  $\beta_s$  in regression equation (3):  $\text{Log}(1 + \text{Firm PAC}_{f,t,c}) = \sum_{s=-3}^5 \beta_s \text{Log}(1 + \text{Investor PAC}_{i,t,c}) \times \text{Cycle } s_{i,f,t} + \Omega + \epsilon_{i,f,c,t}$  where  $\text{Cycle } s_{i,f,t} = \mathbb{1}(t - a(i, f) = s)$  is an indicator function that marks the  $s^{\text{th}}$  cycle after (or before) divestment cycle  $a(i, f)$  and  $s \in \{-3, -2, 0, \dots, 5\}$  and  $\Omega$  is the set of fixed effects in column 8 of Table 2 (firm  $\times$  investor, firm  $\times$  congressional cycle, firm  $\times$  congressional district, investor  $\times$  congressional cycle, investor  $\times$  congressional district, and congressional district  $\times$  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 and investor levels.



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

**Table 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.
<i>Panel C: Cosine Similarity</i>			
<u>Investor-Firm-Cycle data</u>			
$Cos[x_{f,t}, x_{f,t+1}]$	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 2: 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.  $\mathbb{1}(\text{Post})$  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 and investor levels.

Depend. Var.: <b>Log (1+ Firm PAC)</b>		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<b>Log(1+Investor PAC) × <math>\mathbb{1}(\text{Post})</math></b>		0.0259*** (0.00152)	0.0265*** (0.00155)	0.0318*** (0.00128)	0.0219*** (0.00139)	0.0284*** (0.00149)	0.0270*** (0.00153)	0.0162*** (0.00148)	0.0135*** (0.00120)
<b>Log(1+Investor PAC)</b>		0.0512*** (0.00127)	0.0514*** (0.00128)	0.0439*** (0.000942)	0.0488*** (0.00120)	0.0599*** (0.00125)	0.0528*** (0.00129)	0.0443*** (0.00126)	0.0435*** (0.00118)
<b><math>\mathbb{1}(\text{Post})</math></b>		-0.001** (0.000406)	-0.001*** (0.000447)	-0.001*** (0.000395)	-0.004*** (0.000177)	-0.001*** (0.000406)	-0.002*** (0.000459)	0.0005 (0.000402)	-0.001*** (0.000129)
<b>Fixed Effects</b>									
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
<i>N</i>		339,785,165	339,785,165	339,779,962	339,785,165	339,769,326	339,785,165	339,785,165	339,764,091
<i>R</i> <sup>2</sup>		0.031	0.031	0.113	0.038	0.031	0.032	0.040	0.135

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



Table 3: 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.  $\mathbb{1}(\text{Post})$  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;  $\mathbb{1}(\text{Investor's PAC} > 0)$  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.: $\mathbb{1}(\text{Firm's PAC} > 0)$								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
$\mathbb{1}(\text{Inv's PAC} > 0) \times \mathbb{1}(\text{Post})$	0.0252*** (0.00142)	0.0258*** (0.00145)	0.0301*** (0.00120)	0.0215*** (0.00132)	0.0277*** (0.00139)	0.0263*** (0.00144)	0.0164*** (0.00139)	0.0134*** (0.00114)
$\mathbb{1}(\text{Investor's PAC} > 0)$	0.0501*** (0.00120)	0.0502*** (0.00121)	0.0428*** (0.000904)	0.0480*** (0.00114)	0.0580*** (0.00119)	0.0514*** (0.00122)	0.0437*** (0.00119)	0.0427*** (0.00113)
$\mathbb{1}(\text{Post})$	-0.0002*** (0.0001)	-0.0003*** (0.0001)	-0.0002*** (0.0001)	-0.0005*** (0.0000)	-0.0003*** (0.0001)	-0.0003*** (0.0001)	-0.0001 (0.0001)	-0.0001*** (0.0000)
<b>Fixed Effects</b>								
Firm	X				X	X	X	
Investor	X		X	X				X
Congressional Cycle	X	X	X		X			
Congressional District	X	X		X		X		
Firm $\times$ Investor		X						X
Firm $\times$ Congressional District			X					X
Firm $\times$ Congressional Cycle				X				X
Investor $\times$ Congressional District					X			X
Investor $\times$ Congressional Cycle						X		X
Congressional Cycle $\times$ District							X	X
<i>N</i>	339,785,165	339,785,165	339,779,962	339,785,165	339,769,326	339,785,165	339,785,165	339,764,091
<i>R</i> - <i>R</i> <sup>2</sup>	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 4: 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.  $\mathbb{1}(\text{Post})$  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;  $\text{Log}(1+\text{Investor PAC})$  is similarly defined. The mean of the outcome variable is 0.085. Standard errors (in parenthesis) are clustered at the firm and investor levels.

Depend. Var.: <b>Log(1+Firm PAC)</b>		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<b>Log(1+Investor PAC) × <math>\mathbb{1}(\text{Post})</math></b>	0.0322*** (0.00345)	0.0327*** (0.00348)	0.0409*** (0.00300)	0.0288*** (0.00319)	0.0377*** (0.00342)	0.0325*** (0.00353)	0.0161*** (0.00335)	0.0132*** (0.00275)	
<b>Log(1+Investor PAC)</b>	0.0423*** (0.00266)	0.0422*** (0.00266)	0.0418*** (0.00204)	0.0401*** (0.00242)	0.0538*** (0.00256)	0.0434*** (0.00263)	0.0334*** (0.00262)	0.0333*** (0.00231)	
<b><math>\mathbb{1}(\text{Post})</math></b>	-0.004*** (0.00166)	-0.005*** (0.00174)	-0.006*** (0.00164)	-0.004*** (0.000475)	-0.005*** (0.00166)	-0.007*** (0.00186)	-0.002 (0.00165)	-0.002*** (0.000358)	
<b>Fixed Effects</b>									
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
<i>N</i>	38,356,758	38,356,758	38,356,442	38,356,758	38,356,169	38,356,758	38,356,758	38,355,867	
<i>R</i> <sup>2</sup>	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 5: 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 divestments. The data are, therefore, at the investor – firm – congressional cycle – district level.  $\mathbb{1}(\text{Post})$  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;  $\text{Log}(1+\text{Investor PAC})$  is similarly defined. The mean of the dependent variable is 0.121. Standard errors (in parenthesis) are clustered at the firm and investor levels.

Depend. Var.: <b>Log(1+Firm PAC)</b>								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<b>Log(1+Investor PAC) × <math>\mathbb{1}(\text{Post})</math></b>	-0.071*** (0.00746)	-0.073*** (0.00756)	-0.074*** (0.00678)	-0.058*** (0.00682)	-0.070*** (0.00742)	-0.070*** (0.00764)	-0.071*** (0.00743)	-0.063*** (0.00635)
<b>Log(1+Investor PAC)</b>	0.203*** (0.00765)	0.205*** (0.00773)	0.187*** (0.00689)	0.185*** (0.00709)	0.219*** (0.00761)	0.203*** (0.00781)	0.193*** (0.00761)	0.183*** (0.00679)
<b><math>\mathbb{1}(\text{Post})</math></b>	0.0211*** (0.00214)	0.0233*** (0.00234)	0.0214*** (0.00204)	0.0142*** (0.00153)	0.0208*** (0.00214)	0.0125*** (0.00244)	0.0210*** (0.00214)	0.0148*** (0.00149)
<b>Fixed Effects</b>								
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
<i>N</i>	104,258,141	104,258,141	104,249,778	104,258,141	104,232,606	104,258,141	104,258,141	104,225,090
<i>R</i> <sup>2</sup>	0.064	0.064	0.165	0.074	0.068	0.065	0.071	0.195

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

Table 6: 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. The mean of the outcome variable is 0.40. Standard errors (in parenthesis) are clustered at the firm and investor levels.

Dependent Variable: <b>Firm's Fraction to Republicans</b>		(1)	(2)	(3)	(4)
10	<b>Investor's Fraction to Republicans</b> × $\mathbb{1}(\text{Post})$	0.0133** (0.00525)	0.0397*** (0.00509)	0.0297*** (0.00571)	0.0280*** (0.00554)
	<b>Investor's Fraction to Republicans</b>	0.0697*** (0.00232)	0.0402*** (0.00205)	0.0955*** (0.00469)	0.0885*** (0.00461)
	$\mathbb{1}(\text{Post})$	0.0606*** (0.00125)	-0.0291*** (0.00140)	-0.0206*** (0.00154)	-0.0307*** (0.00146)
<b>Fixed Effects</b>					
	Firm	X	X		X
	Congressional Cycle		X	X	X
	Investor			X	X
	<i>N</i>	793,307	793,307	793,291	793,280
	<i>R</i> <sup>2</sup>	0.154	0.204	0.069	0.205

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

**Table 7: 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 (0.00138)	0.183 (0.00135)	0.434*** (0.00193)	0.000	18,612
$Cos[x_{j,t}, x_{j,t+1}] - Cos[x_{j,t-1}, x_{j,t}]$	0.003 (0.00169)	-0.072 (0.00177)	0.075*** (0.00243)	0.000	15,107
$Cos[x_{j,t}, x_{j,t+2}]$	0.521 (0.00156)	0.187 (0.00159)	0.334*** (0.00223)	0.000	13,479
$Cos[x_{j,t}, x_{j,t+2}] - Cos[x_{j,t-2}, x_{j,t}]$	-0.002 (0.00198)	-0.085 (0.00212)	0.083*** (0.00288)	0.000	10,670

Table 8: 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.  $\mathbb{1}(\text{Board})$  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 and investor levels.

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

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

Table 9: 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 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.  $\mathbb{1}(\text{Post})$  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 and investor levels.

Depend. Var.: <b>Log(1+Firm PAC)</b>		(1)	(2)	(3)	(4)
		<i>Private Funds</i>	<i>Public Funds</i>	<i>More Partisan</i>	<i>Less Partisan</i>
13	<b>Log(1+Investor PAC) × <math>\mathbb{1}(\text{Post})</math></b>	0.022*** (0.00268)	0.008*** (0.00136)	0.020*** (0.00463)	0.010*** (0.00122)
	<b>Log(1+Investor PAC)</b>	0.0387*** (0.00274)	0.0407*** (0.00122)	0.039*** (0.00681)	0.036*** (0.00104)
	<b><math>\mathbb{1}(\text{Post})</math></b>	-0.001*** (0.0001)	-0.002*** (0.0004)	-0.009*** (0.0023)	-0.009*** (0.00114)
<b>Fixed Effects</b>					
	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
	<i>N</i>	267,366,099	72,387,795	8,848,871	28,730,108
	<i>R</i> <sup>2</sup>	0.128	0.154	0.193	0.178

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

Table 10: 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 and 2 is the logarithmic transformation of one plus total PAC giving by a firm, whereas in columns 3 and 4 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 5 and 6 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 and 2 is 7.012, whereas in columns 3 and 4 is 4.60, and in columns 5 and 6 is 0.215.

	<b>Log(1+Total)</b>	<b>Log(1+Total)</b>	<b>Log(1+Relevant)</b>	<b>Log(1+Relevant)</b>	<b>Relevant Ratio</b>	<b>Relevant Ratio</b>
<i>Total Inst. Ownership</i>	6.469*** (0.778)	1.182** (0.610)	-1.133 (0.797)	-0.0859 (0.585)	-0.152** (0.0629)	-0.065* (0.0396)
<b>Fixed Effects</b>						
Industry	X		X		X	
Congressional Cycle	X	X	X	X	X	X
Firm		X		X		X
<i>N</i>	13,104	15,688	8,413	12,446	8,413	12,446
<i>R</i> <sup>2</sup>	0.141	0.592	0.216	0.686	0.206	0.594

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



Table A1: Replication of main Table 2 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.  $\mathbb{1}(\text{Post})$  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 at the firm x investor levels.

Depend. Var.: <b>Log(1+Firm PAC)</b>		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
15	<b>Log(1+Investor PAC) × <math>\mathbb{1}(\text{Post})</math></b>	0.0259*** (0.00570)	0.0265*** (0.00581)	0.0318*** (0.00633)	0.0219*** (0.00619)	0.0284*** (0.00627)	0.0270*** (0.00579)	0.0162*** (0.00360)	0.0135*** (0.00313)
	<b>Log(1+Investor PAC)</b>	0.0512*** (0.00441)	0.0514*** (0.00445)	0.0439*** (0.00394)	0.0488*** (0.00447)	0.0599*** (0.00488)	0.0528*** (0.00458)	0.0443*** (0.00373)	0.0435*** (0.00357)
	<b><math>\mathbb{1}(\text{Post})</math></b>	-0.001 (0.00140)	-0.001 (0.00153)	-0.001 (0.00146)	-0.004*** (0.00153)	-0.001 (0.00150)	-0.002 (0.00152)	0.0005 (0.00120)	-0.001*** (0.000445)
<b>Fixed Effects</b>									
	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
	<i>N</i>	339,785,165	339,785,165	339,779,962	339,785,165	339,769,326	339,785,165	339,785,165	339,764,091
	<i>R</i> <sup>2</sup>	0.031	0.031	0.113	0.038	0.031	0.032	0.040	0.135

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

Table A2: 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.  $\mathbb{1}(\text{Post})$  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.: <b>Log(1+Firm PAC)</b>		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
16	<b>Log(1+Investor PAC) × <math>\mathbb{1}(\text{Post})</math></b>	0.0229*** (0.00153)	0.0234*** (0.00157)	0.0275*** (0.00129)	0.0184*** (0.00137)	0.0245*** (0.00150)	0.0239*** (0.00154)	0.0158*** (0.00150)	0.0129*** (0.00119)
	<b>Log(1+Investor PAC)</b>	0.0508*** (0.00131)	0.0510*** (0.00132)	0.0429*** (0.000966)	0.0485*** (0.00124)	0.0588*** (0.00130)	0.0523*** (0.00133)	0.0446*** (0.00130)	0.0438*** (0.00123)
	<b><math>\mathbb{1}(\text{Post})</math></b>	-0.0003 (0.000406)	-0.001** (0.000446)	-0.0004 (0.000395)	-0.003*** (0.000174)	-0.001 (0.000405)	-0.001** (0.000458)	0.0007* (0.000403)	-0.001*** (0.000130)
<b>Fixed Effects</b>									
	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
	<i>N</i>	327,565,333	327,565,333	327,560,537	327,565,333	327,549,494	327,565,333	327,565,333	327,544,666
	<i>R</i> <sup>2</sup>	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 A3: Firms' PAC contributions and weighted investor PAC contributions

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, which has a mean of 0.01, 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 in a similar way, whereas *Log of fraction of shares held by no givers* is the fraction of outstanding shares held by investors that make no PAC contributions.

Depend. Variable: <b>Log(1+Firm PAC)</b>						
	(1)	(2)	(3)	(4)	(5)	(6)
<b>Log of weighted sum of investor PAC</b>	0.0299*** (0.0015)	0.0299*** (0.0015)	0.0259*** (0.00129)	0.0252*** (0.0014)	0.0229*** (0.0013)	0.0234*** (0.0013)
<b>Log of fraction of shares held by no givers</b>		-0.0001 (0.00004)	-0.0002 (0.00013)	-0.0002 (0.00012)	-0.0002 (0.00017)	
<b>Fixed Effects</b>						
Firm			X	X		
Congressional Cycle			X	X	X	
Congressional Candidate				X		
Firm × Congressional Candidate					X	X
Firm × Congressional Cycle						X
<b>Clustering</b>						
Firm	X	X				
Firm, Candidate			X	X	X	X
<i>N</i>	284,309,876	284,309,876	284,309,876	284,309,876	270,161,251	270,161,251
<i>R</i> <sup>2</sup>	0.01	0.01	0.07	0.08	0.28	0.31

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

Table A4: Firms' and passive investors' PAC contributions – Index inclusion sample 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 acquisition due to index inclusion by investors with a passive investment trading strategy. The data are, therefore, at the investor – firm – congressional cycle – district level.  $\mathbb{1}(\text{Post})$  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;  $\mathbb{1}(\text{Investor's PAC} > 0)$  is similarly defined. The mean of the dependent variable is 0.011. Standard errors are clustered at the firm and investor levels.

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Depend. Var.: $\mathbb{1}(\text{Firm's PAC} > 0)$								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
$\mathbb{1}(\text{Investor's PAC} > 0) \times \mathbb{1}(\text{Post})$	0.0323*** (0.00325)	0.0328*** (0.00328)	0.0410*** (0.00283)	0.0288*** (0.00302)	0.0383*** (0.00323)	0.0324*** (0.00335)	0.0162*** (0.00316)	0.0132*** (0.00264)
$\mathbb{1}(\text{Investor's PAC} > 0)$	0.0409*** (0.00250)	0.0408*** (0.00250)	0.0403*** (0.00193)	0.0390*** (0.00231)	0.0513*** (0.00242)	0.0418*** (0.00248)	0.0326*** (0.00246)	0.0325*** (0.00219)
$\mathbb{1}(\text{Post})$	-0.001*** (0.000206)	-0.001*** (0.000217)	-0.001*** (0.000204)	-0.001*** (5.95e-05)	-0.001*** (0.000207)	-0.001*** (0.000231)	-0.0004** (0.000205)	-0.0002** (0.000044)
<b>Fixed Effects</b>								
Firm	X				X	X	X	
Investor	X		X	X				X
Congressional Cycle	X	X	X		X			
Congressional District	X	X		X		X		
Firm $\times$ Investor		X						X
Firm $\times$ Congressional District			X					X
Firm $\times$ Congressional Cycle				X				X
Investor $\times$ Congressional District					X			X
Investor $\times$ Congressional Cycle						X		X
Congressional Cycle $\times$ District							X	X
<i>N</i>	38,356,758	38,356,758	38,356,442	38,356,758	38,356,169	38,356,758	38,356,758	38,355,867
<i>R</i> <sup>2</sup>	0.035	0.035	0.100	0.042	0.035	0.036	0.047	0.126

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

Table A5: 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.  $\mathbb{1}(\text{Post})$  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;  $\text{Log}(1+\text{Investor PAC})$  is similarly defined. The mean of the outcome variable is 0.010. Standard errors are clustered at the firm and investor levels.

Depend. Var.: $\text{Log}(1+\text{Firm PAC})$		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
19	$\text{Log}(1+\text{Investor PAC}) \times \mathbb{1}(\text{Post})$	0.0429*** (0.00655)	0.0429*** (0.00656)	0.0476*** (0.00628)	0.0429*** (0.00648)	0.0444*** (0.00660)	0.0421*** (0.00655)	0.0210*** (0.00801)	0.0189*** (0.00736)
	$\text{Log}(1+\text{Investor PAC})$	0.0624*** (0.00502)	0.0624*** (0.00502)	0.0795*** (0.00516)	0.0624*** (0.00494)	0.0867*** (0.00559)	0.0637*** (0.00501)	0.00690 (0.00581)	0.00781 (0.00579)
	$\mathbb{1}(\text{Post})$	-0.011 (0.0112)	-0.011 (0.0111)	-0.0135 (0.0119)	-0.043*** (0.00705)	-0.012 (0.0116)	-0.014 (0.0114)	0.004 (0.0104)	-0.021** (0.00808)
<b>Fixed Effects</b>									
	Firm	X				X	X	X	
	Investor	X		X	X				X
	Congressional Cycle	X	X	X		X			
	Congressional District	X	X		X		X		
	Firm $\times$ Investor		X						X
	Firm $\times$ Congressional District			X					X
	Firm $\times$ Congressional Cycle				X				X
	Investor $\times$ Congressional District					X			X
	Investor $\times$ Congressional Cycle						X		X
	Congressional Cycle $\times$ 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 A6: 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.  $\mathbb{1}(\text{Post})$  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;  $\mathbb{1}(\text{Investor's PAC} > 0)$  is similarly defined. The mean of the outcome variable is 0.015. Standard errors are clustered at the firm and investor levels.

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Depend. Var.: $\mathbb{1}(\text{Firm's PAC} > 0)$								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
$\mathbb{1}(\text{Investor's PAC} > 0) \times \mathbb{1}(\text{Post})$	-0.075*** (0.00755)	-0.076*** (0.00764)	-0.078*** (0.00700)	-0.061*** (0.00695)	-0.074*** (0.00748)	-0.075*** (0.00770)	-0.074*** (0.00752)	-0.067*** (0.00660)
$\mathbb{1}(\text{Investor's PAC} > 0)$	0.209*** (0.00763)	0.210*** (0.00770)	0.194*** (0.00704)	0.190*** (0.00711)	0.224*** (0.00760)	0.209*** (0.00778)	0.199*** (0.00759)	0.190*** (0.00694)
$\mathbb{1}(\text{Post})$	0.002*** (0.000280)	0.003*** (0.000306)	0.002*** (0.000268)	0.002*** (0.000207)	0.002*** (0.000279)	0.001*** (0.000322)	0.002*** (0.000279)	0.002*** (0.000205)
<b>Fixed Effects</b>								
Firm	X				X	X	X	
Investor	X		X	X				X
Congressional Cycle	X	X	X		X			
Congressional District	X	X		X		X		
Firm $\times$ Investor		X						X
Firm $\times$ Congressional District			X					X
Firm $\times$ Congressional Cycle				X				X
Investor $\times$ Congressional District					X			X
Investor $\times$ Congressional Cycle						X		X
Congressional Cycle $\times$ District							X	X
<i>N</i>	104,258,141	104,258,141	104,249,778	104,258,141	104,232,606	104,258,141	104,258,141	104,225,090
<i>R</i> <sup>2</sup>	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 A7: Firms' and investors' PAC contributions – Board of directors connection 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 cycles around an establishment of a board of directors connection. The data are, therefore, at the investor – firm – congressional cycle – district level.  $\mathbb{1}(\text{Board})$  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 takes the value of one if the total dollar amount of PAC contributions the given firm gave to the incumbent in a given district during a given cycle is greater than zero, whereas the independent variable equivalent for the investor givings. The mean of the dependent variable is 0.011. Standard errors are clustered at the firm and investor levels.

Depend. Var.: <b>Log(1+Firm PAC)</b>		(1)	(2)	(3)	(4)	(5)	(6)
21	<b>Log(1+Investor PAC) × <math>\mathbb{1}(\text{Board})</math></b>	0.030*** (0.008638)	0.037*** (0.010308)	0.022*** (0.006293)	0.025*** (0.007974)	0.030*** (0.008572)	0.026*** (0.006844)
	<b>Log(1+Investor PAC) × <math>\mathbb{1}(\text{Post})</math></b>	0.025*** (0.001419)	0.026*** (0.001451)	0.030*** (0.001201)	0.021*** (0.001318)	0.028*** (0.001389)	0.013*** (0.001134)
	<b>Log(1+Investor PAC)</b>	0.049*** (0.001179)	0.049*** (0.001194)	0.042*** (0.00089)	0.047*** (0.001125)	0.056*** (0.001170)	0.042*** (0.001114)
	<b><math>\mathbb{1}(\text{Board})</math></b>	-0.002*** (0.000470)		-0.001*** (0.000347)	-0.001*** (0.000431)	-0.002*** (0.0004678)	
	<b><math>\mathbb{1}(\text{Post})</math></b>	-0.0003*** (0.00005)	-0.0004*** (0.00005)	-0.0003*** (0.00005)	-0.0005*** (0.00002)	-0.0002*** (0.00005)	-0.0002*** (0.00002)
	<b>Fixed Effects</b>						
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	
Investor × Congressional Cycle						X	
<i>N</i>	339,785,165	339,785,165	339,779,962	339,785,165	339,769,326	339,764,091	
<i>R</i> <sup>2</sup>	0.030	0.030	0.115	0.036	0.030	0.135	

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

Table A8: 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.  $\mathbb{1}(\text{Post})$  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 and investor levels.

Depend. Var.: <b>Log(1+Firm PAC)</b>		(1)	(2)	(3)	(4)	(5)
		<i>Investment Advisors &amp; Companies</i>	<i>Bank Trusts</i>	<i>Insurance Companies</i>	<i>Corporate Pensions</i>	<i>Endowments &amp; Public Pensions</i>
22	<b>Log(1+Investor PAC) × <math>\mathbb{1}(\text{Post})</math></b>	0.020*** (0.001660)	0.009*** (0.002072)	0.006** (0.003434)	0.027*** (0.011944)	-0.055*** (0.010023)
	<b>Log(1+Investor PAC)</b>	0.035*** (0.001275)	0.043*** (0.001776)	0.037*** (0.004021)	0.041*** (0.005790)	0.139*** (0.016532)
	<b><math>\mathbb{1}(\text{Post})</math></b>	-0.001*** (0.000088)	-0.004*** (0.000781)	-0.003** (0.001392)	-0.026*** (0.011887)	-1.49e-15 (5.57e-10)
	<b>Fixed Effects</b>					
	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
	<i>N</i>	256,349,670	37,644,254	11,503,499	1,868,518	4,291,699
	<i>R</i> <sup>2</sup>	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.