Block Diversity and Governance

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We thank Alon Brav, Lea Stern, David Yermack, and Jonathan Kalodimos for helpful discussions and seminar participants at Rice University and Oregon State University, and participants in the MFA 2018, the 2018 WAPFIN@Stern, and the 2019 Summer Finance and Accounting Conference in Jerusalem.

Abstract

We show that corporate governance practices vary predictably across different types of blockholders. Nonfinancial blockholders are six times as likely to self-identify as active shareholders relative to financial blockholders. Textual analysis of regulatory filings reveals that nonfinancial blocks tend to govern through tailored actions, while financial blocks govern through generic performance-based measures. The market responds positively when nonfinancial blocks enter small, volatile, and illiquid firms where close monitoring is likely to be valuable. Finally, we find that prior studies using the Russell index inclusion discontinuity may falsely attribute governance practices to institutional ownership and may instead capture nonfinancial blockholder governance.

Keywords: Blockholders, Shareholders, Governance, 13D Filings, 13G filings, Textual analysis, Russell discontinuity

JEL Classifications: G30, G34, G39, G23

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Block Diversity and Governance[1]

Abstract

Governance practices vary across blockholder types. Nonfinancial blockholders are six times more likely to identify as activists compared to financial blockholders. Textual analysis of regulatory filings shows that nonfinancial blocks govern through customized actions, while financial blocks follow generic performance metrics. We also find that blockholdings drive an important limitation in using Russell index thresholds as an identification strategy. Manipulation of index weights by Russell is strongly correlated with nonfinancial block ownership, confounding previous research on passive ownership. Using both reduced-form and structural estimates, we show that the market expects greater value creation from the entry of a nonfinancial blockholder.

Keywords: Blockholders, Shareholders, Governance, 13D Filings, 13G filings, Textual analysis, Russell discontinuity

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[1] Ryan Israelsen is from Michigan State University, Miriam Schwartz-Ziv is from the Hebrew University of Jerusalem, and James Weston is from Rice University.

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We test whether different types of blockholders drive differences in corporate governance. Following Cronqvist and Fahlenbrach (2009) and Edmans and Holderness (2017), we focus on whether differences in blockholder's preferences and incentives drive different patterns in specific mechanisms of corporate governance. Further, we test whether the market responds differently to the entry of a block depending on the quality of the match between the block- and firm-type.

There are clear differences in governance between firms held by nonfinancial blockholders, such as the Walton family's large stake in Walmart, comparted to financial institutions, like Fidelity, holding a stake in Target Corp. Financial institutions act as agents for many clients, increasing the costs associated with delegated monitoring (Jensen, 1986; Dasgupta, Fos, and Sautner, 2021). In contrast, nonfinancial blockholders are more actively involved in the firm's operations and may require less formal monitoring (Villalonga and Amit (2006), Anderson & Reeb (2003)). Instead, they rely on voice and engagement as a means of governance. Consequently, nonfinancial blockholders may employ fewer externally observable mechanisms for monitoring, leading to lower equilibrium agency costs. Conversely, closely held firms may pressure for less monitoring to consume perquisites Cheung et al., 2006. On the other hand, financial institutions may prioritize short-term gains (Dasgupta and Piacentino, 2015), firms with nonfinancial blockholders may rely less on formal contracts for governance.

Several recent studies test whether differences in ownership by passive index funds or large financial institutions drive governance decisions. (e.g., Boone and White (2015), Appel, Gormley, and Keim (2016), McCahery, Sautner, and Starks (2016), and Crane, Michenaud and Weston (2016)). However, detailed data on nonfinancial blocks is difficult to observe. Edmans and Holderness (2017) point out that much less is known about governance by "nonfinancial" blockholders (who do not file form 13F) such as private firms, wealthy individuals, or some private

equity firms. A notable exception is Clifford and Lindsey (2016) who study how block heterogeneity drives compensation and performance. Our study, while related, is focused on blockholder heterogeneity and corporate governance.

To test the hypotheses that governance varies by block type, we compile a unique dataset for both financial and nonfinancial blocks. Our findings reveal several notable economic distinctions. Nonfinancial blockholders tend to hold a single large block in younger firms, whereas financial blockholders own an average of almost 11 smaller blocks in larger, older, and more established firms. Additionally, nonfinancial blocks tend to be geographically closer to the firms they hold. These simple differences alone suggest that nonfinancial blocks may engage in more hands-on active governance.

To understand the differences between financial and nonfinancial blocks, we dive deeper into the regulatory filings of blockholders that state, from their perspective, how they intend to govern. We focus first on blockholders' decision to file form 13D or 13G filings thereby self-identifying as active versus passive blockholders. Based on filings over 20 years (1998-2008), we find that financial blockholders mainly file form 13G, reflecting passive involvement, while nonfinancial blocks are much more likely to file an activist form 13D. In our data, only 7.1% of financial blockholders identify as activists, whereas nonfinancial blocks are 6 times more likely to self-identify as active. This large difference suggests different economic perceptions of their shareholder roles. Furthermore, we also report analysis for finer block categories: individuals, hedge funds, financial institutions, and other private entities, and in a separate analysis break down financial blocks into short-term and long-term blocks. The results from our finer classifications show that while there are large differences between financial and nonfinancial blockholders, there are smaller differences within these other categories.

We extend our analysis following Brav, Jiang, Partnoy, and Thomas (2008) by examining the "Purpose of Transaction" statements provided by blockholders in our full sample of 48,863 13D filings, i.e., for *all* types of blocks. This statement offers direct insight into how blockholders perceive their role in governance and disclose how they intend to govern. Using unsupervised machine learning textual analysis tools, we demonstrate how different types of blockholders use different governance practices: financial blocks prioritize conventional performance measures, while nonfinancial blockholders prioritize active internal management of corporate policies. For example, roughly 25% of financial blocks use terms like "maximize shareholder value" and/or "undervalued," while only 3.3% of nonfinancial blocks do so. In contrast, discussions about director elections, nominations, or vacancies are present in over a third of nonfinancial blockholders' 13D filings, but only in a fifth of those filed by financial blocks. Our findings suggest that nonfinancial blocks perceive themselves as proactive, hands-on shareholders, whereas financial blocks tend to focus on generic /short-term performance measures. Nonfinancial blocks are 28.5% more likely to describe what we classify as specific governance actions. Financial blocks use more boilerplate language.

We next test whether blockholders' stated intentions align with their actual governance practices. We find that firms with financial blockholders have greater external monitoring mechanisms, indicating expected higher agency costs and perhaps less active monitoring in equilibrium. Firms with nonfinancial blocks are less targeted by external activists, receive fewer activist shareholder proposals, activist attempts are less successful, and vote outcomes tend to favor management. Taken together, these correlations suggest firms with nonfinancial blockholder rely less on external governance, appear more resistant to external control, and have fewer takeover defenses in place, such as poison pills or restrictive merger approval rules. The drivers of this

difference however, could come from two sources. On the one hand, firms with closely held long-run nonfinancial blockholder may not need external control mechanisms because their holdings make them more naturally aligned with external non-block shareholders. On the other hand, closely held firms may pressure the board to avoid external monitoring for the exact purpose of extracting rents through perquisite consumption. Regardless of the direction, the basic governance patterns we see in the data appear to line up with our textual analysis of 13D filings.

These large sample correlations may reflect some endogenous matching between firms and blockholders. Indeed, some recent studies try to identify a causal relationship using a discontinuity in the Russell index weights as a source of exogenous variation in index fund ownership (e.g., Boone and White (2015), Appel, Gormley, and Keim, (2016, 2018), Crane, Michenaud, and Weston (2016)). Our analysis of this quasi-experimental setting intersects with these past studies in an unexpected way: shares owned by nonfinancial blockholders are excluded from Russell's calculation of a firm's public float. Because we have data on both financial and nonfinancial blocks, we can show that Russel's float adjustment leads to a discontinuity of 15.4% in ownership of nonfinancial blocks, as compared to a discontinuity of only 3.2% in the ownership of index funds near the Russell 2000 cutoff.

The discontinuity for the nonfinancial blocks is roughly 5 times larger than for index funds. Our analysis reveals that the Russell float adjustment violates the assumption of local continuity in outcomes around the threshold. This subtle bias is not a small econometric quibble, but rather changes the entire economic interpretation of prior Russell studies. Previous conclusions regarding governance by passive blocks may simply reflect variation in unobserved nonfinancial block ownership.

In our next set of tests, we focus on market reactions to blockholder entry, depending on the quality of the match between blockholder and company. Prior studies have shown that active governance via close monitoring has a larger marginal benefit for small and risky companies.[2] Correspondingly, in our tests, we find that the announcement of a nonfinancial block results in a significantly more positive market reaction for these firms. This indicates that when firms for which close monitoring is expected to be especially valuable are matched to a blockholder who tends to monitor, the market responds especially positively.

In our final set of tests, we repeat our event study of blockholder entry but follow the structural estimation in Albuquerque, Fos, and Schroth (2022) to separate announcement returns into activism, stock picking, and selection bias components. The results from our structural estimation are generally consistent with reduced form event study returns, we find that value of activism in the announcement returns is larger for nonfinancial blocks, especially in small or volatile firms.

Our study makes several contributions. We demonstrate how governance varies depending on the block type. Our analysis generates fresh descriptive insights on the governance of heterogeneous blockholders, and is the first to examine, for *all* types of blockholders,[3] the statements made by blockholders (via dissection of the language used by shareholders) in *all* their 13D filings on how they intend to govern. Our results suggest that nonfinancial blocks are more likely to actively monitor with specific intentions while financial blocks tend to focus on generic boilerplate terms "maximize shareholder value."

[2] See Demsetz and Lehn (1985) on volatility, Pirinsky, and Stulz (2007) and Grossman and Hart (1980) on firm size.
[3] While some studies focus on governance by hedge funds (e.g., Brav, Jiang, Partnoy, and Thomas (2008); Klein and Zur (2009)), founders (Li and Srinivasan (2011); Anderson, Duru, and Reeb (2009)), or executives (Jensen and Warner (1988); Kim and Lu (2011)), they do not take a full overview of governance across all types of blocks.

Our results are distinct from prior studies that focus on investor horizon diversity. For example, Bushee (1998, 2001) demonstrates how different desired investment horizons of different financial institutions affect the companies in which each institution chooses to invest. The studies of Bushee (1998, 2001) focus only on financial institutions that file 13F filings. The findings highlight that while diversity prevails between financial institutions with different investment horizons, substantially larger diversity prevails across financial versus nonfinancial blocks. This further highlights the importance of examining the governance practices of *all* block-types.

Another important contribution is that we uncover a limitation in the Russell index discontinuity design. Our results question the interpretation of prior studies. We show that even if this method was statistically valid (which we argue is not the case), results observed on governance practices using the Russell discontinuity method, are, in fact, primarily driven by the ownership of nonfinancial blocks rather than that of index funds.

Finally, using our novel ownership datasets, we show that when firms for which close monitoring is likely to be especially valuable (i.e., small and volatile firms) are matched to a blockholder who typically monitors closely (i.e., a nonfinancial blocks), the market responds especially positively.[4]

2. Data and Summary Statistics

[4] Our blockholder classification dataset is available on WRDS for free. The dataset includes blockholder name, CIK, a 4-category classification (individuals, hedge funds, financial institutions, and other private entities), a 2-category classification (whether the block is or is not a 13F filer), for 13F blocks, we also include a short- or long-term blockholder classification, and an "insider" flag.

Our data come from a variety of sources. When examining the entrance of a block, we use historical 13D, 13G, and ADV filings obtained from the SEC's website, for the years 1994 through 2018 (this data is used in Tables 2-4 and 8-11). When examining annual snapshots of blockholdings (Tables 5-7 and Figures 1-3), we use Factset blockholder data on all 5% ownership revealed in any public filing for the 2001-2014 period, this data is described in Schwartz-Ziv and Hadlock (2019). CRSP and Compustat data is used for financial data.[5] The blockholder data (obtained from 13D, 13G, ADV filings, and Factset) is matched with Compustat/CRSP by using common identifiers, followed by hand checking of ambiguous cases. We match all Compustat records for the most recent fiscal year ending that falls on or before the ownership snapshot. ISS voting analytics, GMI, and Sharkwatch datasets are used for governance variables (we match the most recent data as of the ownership snapshot date). Our Glossary of Variables defines all the data fields we use in the paper.

We define blockholders as investors who own at least 5% of a firm's outstanding shares. A financial blockholder is defined as a blockholder who files form 13F, and all other blockholders are classified as nonfinancial blockholders.[6] We use the 13F filing as our main classification because, shareholders who meet this requirement act as agents for a large number of clients, which is how we separate differences in the marginal cost of delegated monitoring. Additionally, we use this classification since most prior studies focus on 13F blocks, and thus, this classification allows to clearly identify the "other" (nonfinancial) blocks frequently excluded from other studies.

[5] We construct an annual snapshot of each firm's ownership structure as of June 30. This assures that proxy statement information for firms with December fiscal year endings will have been incorporated into the subsequent June ownership listing.

[6] Institutional investment managers who manage over $100 million are required to file quarterly 13F reports disclosing their holdings.

Table 1 reports summary statistics for our sample of blocks. The identification of the block type is based on the annual snapshot of ownership structure on June 30th each year. Table 1 shows that nonfinancial blocks are more common in small firms. Firms with a financial block are roughly twice as large as firms with a nonfinancial block. The average block size of a nonfinancial block is 15.7% which is larger than the average of 8.1% for financial blocks. The implied holding period of a nonfinancial block is 3.6 years, versus 2.7 years for a financial block.[7] Importantly, nonfinancial blocks only hold an average of 1.2 blocks simultaneously while financial blocks hold over ten blocks at the same time, on average. Nonfinancial blocks also tend to be more local. 12.4% of nonfinancial blockholders are located within 50 miles of the firm's headquarters, while only 7% of financial blocks are geographically close.[8] Prior studies argue that shareholders who are physically close to companies are better able to monitor these companies (e.g., Coval and Moskowitz (1999) and Cumming and Dai (2010)). Collectively, these characteristics suggest that our sample of non 13F blockholders hold more focused, larger positions in smaller, geographically closer companies for longer periods. On average, blockholders who do not file form 13F are substantially different from financial blocks and may govern the firms they hold more closely.

To understand how financial versus nonfinancial blocks view their role in corporate governance, we first follow Edmans, Fang, and Zur (2013), and focus on how blocks self-identify. Specifically, in regulatory filings, blockholders must identify themselves either as active, by filing form 13D, or as passive, by filing form 13G. Table 2 reports that only 7.1% of the financial

[7] Implied duration is estimated by regressing an indicator variable documenting whether the observation year is the last year the block existed, conditional on being a nonfinancial block, or alternatively, a financial block, and taking the inverse of the constant.

[8] We estimate this figure by extracting each blockholder's zip code from the 13-D or 13-G filing, obtaining the firm's headquarters's zip code from Compustat, and estimating the distance between these zip codes using the NBER ZIP Code Distance Database.

blockholders identify as active, while 45.4% of the nonfinancial blockholders identify as active shareholders, thus, nonfinancial blocks are at least 6 times more likely to self-identify as active.

To get a deeper sense of how different types of blockholders govern we extend our analysis from Table 2 using four sub-categories of blockholders: (1) Individuals. Includes all individuals and family-owned firms (approximately half of these are executives); (2) Hedge funds. This includes both hedge funds and private equity funds; (3) Other private blocks. The category includes private companies, public companies, nonprofit/government entities, public pension funds, firms' pension funds, and employee stock ownership plans; (4) Institutional blocks. Includes financial institutions managing investments for other investors (over 97% of these blocks are 13F filers). All these block categories are at defined at the investor level, and thus, are consistent across all blocks of a given investor (this is also true for the financial and nonfinancial categories). A finer categorization is possible, but this results in an unwieldy number of block types.

We choose these four categories because prior research has shown that each of these block types is unique in certain ways. *Individuals* face fewer agency problems since they invest their own assets in the firm and are likely to be more hands-on and involved in the company's daily operations (Agrawal and Knoeber (1996), Himmelberg, Hubbard, and Palia (1999)). Individuals also include family firms, which are especially profitable when the family members are closely involved in the firm, e.g., when a family member serves as the CEO (Villalonga and Amit (2006), Anderson & Reeb (2003)). *Hedge funds* are likely to have intense discussions with management and promote the appointment of directors who represent their interests (Brav, Jiang, and Partnoy (2008), Klein and Zur (2009)).

Other private blocks primarily include private and public firm ownership. These blocks are often formed as part of a product–market relationship (Allen and Phillips (2000), Fee, Hadlock,

and Thomas (2006)). *Institutional* blockholders include both actively managed funds and passively managed funds (Dasgupta, Fos, and Sautner (2021)). Our category of nonfinancial blocks essentially includes all *Individual* and *Other private blocks* and 58% of the *Hedge fund* blocks, and the "financial" blocks include almost all (97%) of the *Institutional* blocks and 42% of the *Hedge fund* blocks.

We classify investors into these four categories using several criteria. First, we identify hedge fund investors by matching 13D filings to historical ADV filings using both names and addresses and phone numbers when possible. Form ADV is filed with the SEC by all registered investment advisors (RIAs) and (among other things) includes investment style, and the types of clients, which can be used to identify hedge funds. When we find a match, we classify an investor as a hedge fund if at least half of the investment advisers' clients are classified in the ADV filing as "High Net Worth Individuals" or "Other Pooled Investment Vehicles (e.g., Hedge Funds)".[9] We then classify institutional blockholders as those who are required to file form 13F (excluding hedge funds). We then separate the remaining filings into individuals and other private investors based on the filer name. In the last step, we read through the 13D forms filed by other private blockholders to spot check for misclassifications (e.g., hedge funds that don't file an ADV).[10]

The results in Table 2 indicate a particularly sharp difference in the frequency individuals self-identify as activist by filing a 13D form (51.2% identify as active) as compared to financial

[9] Our approach follows that of Brunnermeier and Nagel (2004), Griffin and Xu (2009), and Ben-David, Franzoni, and Moussawi (2012). In untabulated results, we use a more stringent threshold of 75% and find results that are very similar to those using the lower threshold.

[10] The 4 block-type classifications map into the 2-block-type classification as follows: All "Individual" and "Other private blocks" (from the 4 block-type classification) are mapped into the "Non-financial" blocks category in the 2-block-type classification. All "Institutional" blocks are mapped to the "Financial" blocks category in the 2-block-type classification. 55% of the blocks classified as "Hedge funds" blocks are mapped to the "Financial" blocks category in the 2-block-type classification, while the remaining 45% are mapped to the "Non-Financial" blocks category.

institutions (6.6% identify as active). These two types of blocks represent, perhaps, the two extremes in terms of the agency conflict a block is likely to encounter. Large blocks held by individual investors are likely to face smaller agency conflicts, and this is likely reflected in their self-perception as active shareholders. On the other hand, financial blocks involve another layer of separation, and it seems reasonable to assume a higher marginal cost of monitoring resulting in higher equilibrium agency conflicts. As a result, financial blocks with higher agency conflicts and higher coordination costs may be more likely to govern through trading.

Next, to capture heterogeneity in the investment horizon of financial blockholders, we define the investment horizon for all 13D filings as the length of time until the investor's holding drops below the 5% threshold. Next, we calculate the average horizon for an investor across all investments to classify each blockholder. We define short-term (long-term) investors as those with an average investment horizon below (above) the median.[11]

Our results show that heterogeneity exists within the financial blocks based on their investment horizon: long-term financial blocks shift in the direction of nonfinancial blocks (relative to short-term financial blocks). However, compared to the difference observed for long-term financial blocks versus short-term financial-blocks, substantially larger differences are observed for financial versus nonfinancial blocks.

This is evident, for example, with respect to the frequency 13D filings are filed: Table 2 shows that of all the 13D and 13G filings filed by short-term financial blocks, 16.2% of the filings were 13D filings compared to roughly half that amount (8.5%) for long-term financial blocks. However, larger differences exist with respect to financial versus nonfinancial blocks. Of all the

[11] For investors that own at least 5% at the end of the sample, we list 1/1/2019 as the end of the investment horizon. In unreported analysis we drop all blocks that have not been sold yet and obtain similar results.

13D and 13G filings filed by financial blocks, 7.1% are 13D filings compared to 45.4% for nonfinancial blocks - more than 6 times larger.

Bushee (1998, 2001) demonstrates how financial institutions' different investment horizons affect the companies in which each institution chooses to invest. While those studies focus on firms that file form 13F, we consider the full spectrum of blockholder types. As we show, while there are different investment horizons for different block types, this is not the main driver of our results. Even conditional on investment horizon, there are larger differences between financial and nonfinancial blockholders.

Finally, in the last two columns of Table 2 we further classify nonfinancial blockholders as insiders or outsiders. We identify insiders as those filing SEC Form 3, 4, or 5 (in a given company), and outsiders as those that do not. We find that nonfinancial insiders file form 13D 57.7% of the time compared to 35.1% for outsiders. Hence, perhaps not surprisingly, nonfinancial insiders are 1.6 times as likely to self-identify as an activist. Thus, we observe substantially smaller differences (in terms of the magnitude) between nonfinancial insiders versus nonfinancial outsiders relative to the differences observed between nonfinancial versus financial blocks.

3. How do Blockholders State they will Govern?

To test whether and how different types of blocks view their governance roles differently, we conduct a textual analysis of regulatory filings where blockholders, as required, describe how they intend to govern. These statements provide clear, self-reported insight on how different types of blocks intend to govern.

Our analysis is based on firms submitting form 13D where they are required to discuss the "Purpose of Transaction" (Item 4). This is arguably the most important feature of a 13D filing and

distinguishes it from a 13G filing, which does not include a "Purpose of Transaction" item. To conduct our analysis, we first assign filings into categories based on the general stated goals in Item 4. We measure the most common one-, two-, three-, and four-word phrases. After discarding a standard dictionary of "stopwords" and boilerplate phrases, we identify a set of topics related to valuation, capital structure, strategy, and governance.[12] We then search through the text of Item 4 in the full set of 13D filings using the set of key words for each topic. For example, the topic "maximize shareholder value" includes all variations of those words (e.g., "maximizing shareholder value", "increasing shareholder value", "maximize the value to shareholders", etc.). After classifying filings into topics, we read through several random filings that fall under each topic to cross check that our classification is accurate (Appendix B provides details on how we identify each topic).

In Table 3, we report the types of phrases each blockholder category uses in Item 4 of their 13D filings. Only 4% of nonfinancial blockholders use the terms "maximizing shareholder value" or "undervalued". In stark contrast, financial blockholders use these terms in 25.6% of their 13D filings, i.e., 6.4 times more frequently. Results are similar for the terms "maximizing shareholder value" and "undervalued" separately. Financial blocks are also more likely to discuss capital structure (2% versus 16.5%, respectively), repurchase activity (2.1% versus 3.8%, respectively) and restructuring (1.5% versus 10.1%, respectively). These differences are all statistically significant at the 1% level. A recurring theme in these results is that financial blocks appear to be more focused on objective financial metrics.

[12] Stopwords are the most common words used in English (e.g., "the", "and", and "of") that are typically removed before performing a textual analysis.

Our results also reveal that nonfinancial blockholders are more likely to be directly engaged in managerial choices. For example, 34.3% of the nonfinancial blocks discuss dividends, while only 26.1% of the financial blocks do so. Nonfinancial blocks are also more focused on appointing directors — they use the words elect, nominate, or vacancy (words primarily used when discussing the appointment of directors to the board) in 32.8% of the filings, while financial blocks do so in only 19.8% of the filings.

In our next set of tests, we dig deeper into the sub-categories of blockholder types. Again, we observe large differences in the governance practices of firms with individual blocks, versus those with an institutional block. For example, institutional blockholders are 4 times more likely to mention "maximizing shareholder value" or "undervalued" than are individuals. In addition, institutions are almost 4 times as likely as individuals to discuss the firm's capital structure in Item 4. Individual blockholders are also the most likely (in more than a third of their filings) to use the words "elect", "nominate", or "vacancy", which are typically used to discuss the appointment of board members.

The differences we document between hedge funds and individuals are particularly large. For example, hedge funds are 9 times more likely to mention "maximizing shareholder value" or "undervalued", and 13 times more likely to discuss restructuring. These results are consistent with Brav et al. (2008) who show the activist role some hedge funds take and their involvement in capital structure changes. These results are also consistent with Clifford and Lindsey (2016) who show that firms with active hedge fund blocks are more likely use performance-based compensation. The subsample analysis of short-term and long-term financial blockholders in the final set of columns indicates that financial investors with longer horizons use language that looks closer to Nonfinancial blockholders than short-term investors.

If nonfinancial blocks are particularly active shareholders, as their frequent 13D filings imply, then Item 4 should be more specific about the actions they intend to take. To test this hypothesis, we construct a measure of the specific language tone used in Item 4. We calculate a measure of specificity that captures whether boilerplate language is used (low specificity), or alternatively, whether the text alludes to specific places, people, organizations, dates, times, and quantities (high specificity). We use the Stanford Named Entity Recognizer (NER) to count the number of occurrences of these entities. Specificity is defined as the total number of named entities in Item 4 divided by the total number of words in Item 4.[13] Additionally, we calculate word counts using a set of word lists from the Loughran and McDonald (2011) dictionary to capture the language tone in financial disclosures. We count words from the positive, negative, weak modal, strong modal, and uncertainty word lists and divide by the total number of words in Item 4.

Table 4 presents our results. The first two columns present differences in the language used in item 4 of the 13D filings of nonfinancial versus financial blockholders. The differences are all statistically significant at the 1% level. Consistent with our hypothesis, nonfinancial blockholders use more specific language and tend to include more references to people, organizations, places, quantities, and dates. In other words, nonfinancial blocks appear to be clearer and more specific about their plans, while financial blockholders include more boilerplate and vague language. While an average of 4.9% used by financial blocks describe specific people, organizations, places, quantities, and dates, such words represent 6.3% of nonfinancial blocks' plans, i.e., 28.5% more specific words.

[13] A few recent papers use this measure of specificity. Hope, Hu, and Lu (2016) find that more specific disclosures are associated with greater market responses and improve the ability of analysts to assess fundamental risk. Cazier, McMullin, and Treu (2018) find that less specific (i.e., more boilerplate) risk facture disclosures limit liabilities in shareholder lawsuits and lead to less scrutiny by the SEC.

As an example of a nonfinancial block's filing with a high specificity score (equal to 23.8%), consider the 13-D filing by Arturo "Jake" Sanchez, when revealing the purchase of a block in Medina International Holding in 2015 (presented in Appendix A). The filing describes in great detail how Mr. Sanchez plans to alter board seats, debt retirement, share issuance, change the company name, conduct a reverse split, and handle the disposition of a specific asset (a boat). In contrast, Panel B of Appendix A demonstrates an example of a filing filed by a financial block with a low specificity score. The filing by KLS Diversified Asset Management revealing a block purchase in Penn Virginia Corporation contains no details or specific actions at all. It frequently includes vague boilerplate language and, correspondingly, has a low specificity score (0.88%).

In addition to being more specific about their plans, nonfinancial blockholders also use more strong modal words (e.g., will, must, can, etc.) and fewer weak modal words (e.g., "hedge words" like may, might, could, etc.). Once again, these results indicate that nonfinancial blockholders make a stronger commitment in their statements, while financial blocks prefer to be more cautious. This conclusion is further strengthened by the finding that, relative to nonfinancial blocks, financial blocks are significantly more likely to use more cautious language. Additionally, financial blockholders tend to use more positive words and fewer negative words than nonfinancial blockholders, perhaps attempting to portray themselves in a positive light.

The final set of results present differences in word usage across short- versus long-financial blockholders. While there are statistically significant differences in each category, these differences are all smaller than those documented for financial versus nonfinancial blocks.

Taken together, our results suggest that nonfinancial blocks' filing language emphasizes more specific and active corporate governance while financial blocks discuss vague goals like general financial performance. Financial blocks tend to use positive, standard, vague, and cautious

language in their filings. Put differently, financial blocks tend to use the filings as an opportunity to cautiously portray themselves in a positive light, without stating specifics about the actions they intend to take. Combined with our findings that nonfinancial blockholders hold a single large block in a smaller and more local company, our textual analysis supports the argument that nonfinancial blocks tend to prefer hands-on tailored monitoring, while financial blocks focus on generic short-term measures that are aimed at "maximizing shareholder value". This is, of course, not to say that nonfinancial blocks don't want to maximize shareholder value. We assume all shareholders want to maximize wealth but may have heterogenous beliefs about how to do so. What drives financial blocks to use this specific term so frequently could come simply from its somewhat vague and passive association with short-term stock price improvement.

4. The Governance Mechanisms of Nonfinancial Blocks

In this section, we explore the relationship between different blockholder types and the distinct corporate governance mechanisms they employ. Specifically, we expect that firms with nonfinancial blockholders exert tighter control over the companies they hold and rely less on formal monitoring mechanisms compared to firms with financial blockholders. To test this, we present simple regressions that describe the correlation between ownership structure and corporate governance. While these correlations cannot definitively identify whether certain blockholders choose to invest in a company due to existing governance practices or if they introduce new practices themselves, they provide descriptive insights into the governance by different blockholders, as suggested by Edmans and Holderness (2017).

In Table 5, we present regression results that include dummy variables to indicate the presence of a financial and/or a nonfinancial block relative to the baseline category of no block

ownership. All regressions control for size (log market capitalization), ROA, Tobin's Q (market-to-book), return volatility (log standard deviation of daily returns), and include year and industry fixed effects. We use the most recent independent variables available prior to the date of the dependent variable. All variables are defined in the Glossary of Variables. Standard errors are double clustered by year and firm.

The results in Table 5, Column 1 show companies with a nonfinancial block are 14% (-.007/0.05) less likely to be targeted by a shark attack (0.05 is the mean frequency of "Shark attack" as indicated in the last row of Table 5). Table 5, Column 2 shows that companies with a nonfinancial block are 19.1% (-0.026/0.136) less likely to receive a shareholder-initiated proposal. Both results suggest these companies are less likely to be targeted by external activists. If nonfinancial blockholders are more aligned with outside shareholders, then the lower marginal expected benefit of external governance may lead to less activist investors.

Our next set of findings are also consistent with this interpretation. The fraction of votes cast in support of management on say-on-pay proposals (Table 5, Column 3) increases when a nonfinancial block is present. We find similar (unreported) results for other management proposals that represent forms of external monitoring like appointing directors, etc. These findings also suggest that nonfinancial firms are more immune from external monitoring.

Firms with a nonfinancial block are less likely to have takeover defenses. They are 7.1% less likely to have a poison pill (Table 5, Column 4). We also find that CEOs of companies with nonfinancial block are likely to have longer tenure (Table 5, Column 5), which prior studies have argued indicates entrenchment (e.g., Hermalin and Weisbach (1991), Berger, Ofek and Yermack (1997)). In addition, nonfinancial companies have fewer outsiders (Table 5, Column 6), which may allow nonfinancial blocks to maintain tighter control. In addition, Malenko (2014) stresses

that board meetings that exclude the CEO ("executive meetings") are important for good governance, but we find firms with a nonfinancial blockholder are much less likely to hold such meetings (Table 5, Column 7).

The recurring theme in these regressions is that nonfinancial firms have distinct and different governance practices. Overall, it appears that firms with nonfinancial blockholders employ fewer formal mechanisms for external monitoring which likely reflect a greater alignment between shareholders and managers resulting in lower agency costs. On the surface, firms with nonfinancial blockholders do not appear to follow what are often considered to be "best practices" for corporate governance. In unreported results, we repeat our analysis for the four blockholder categories described above: individuals, hedge funds, other private blocks, and institutional blocks. The results show that firms with individual blocks typically have opposite governance patterns relative to firms with institutional blocks.

Broadly, our results support the hypothesis that different blockholders, with different exposure to agency conflicts, are likely to govern differently. Firms with a financial block are more likely to have formal governance practices that grant or give in-practice shareholders explicit rights. Firms with a nonfinancial block do not appear to rely on formal generic governance. Of course, our results for nonfinancial blockholders could reflect greater agency problems if the lower use of external governance mechanisms reflects successful pressure to avoid monitoring in order to consume perquisites and other rent seeking behavior. However, in unreported analysis, we find no differences in operating performance or long-run stock market performance between portfolios with firms that have financial vs. nonfinancial blockholders. If there are persistent difference in agency costs between blockholder types, they are either correctly priced, or they are too small or noisy to be easily observable in the data.

5. Identification problems using the Russell discontinuity

In the previous section we find that nonfinancial blockholders exhibit long-term and stable ownership positions. These blocks are of particular interest to many capital market participants because they are often considered to be illiquid. Because they are closely held, these shares are unlikely to be available for trading, at least in the short run. Consequently, many index providers construct "float-adjusted" market capitalization measures by excluding shares owned by insiders, family members, and other nonfinancial blockholders. This is particularly evident in the construction of Russell indices, where index weights are determined market capitalization, but only after removing positions held by directors, senior executives, managers, and the nonfinancial blockholders we analyze.

These float adjustments to the Russell index portfolio weights are strongly correlated with governance. For example, consider the Walmart corporation where large blocks are not available for trading. A straight market capitalization number might give a false sense of how many shares are actively liquid. However, a number of studies use discontinuities in ownership patterns around Russell indexes to study the effect of ownership on corporate governance (e.g., Boone and White (2015), Appel, Gormley, and Keim (2016, 2018), and Crane Michenaud and Weston (2016)).

In this section, we describe how our data is specifically informative in revealing a basic problem with this quasi-experimental setting. As we show, the results of past studies that rely on plausibly exogenous variation in passive ownership around the Russell threshold disappear once we account for nonfinancial block ownership.

The research design using Russell index thresholds is seemingly simple. At the end of June each year, Russell ranks all firms based on their total market capitalization. The largest 1,000 firms

are assigned to the Russell 1000 index while the next 2,000 firms (firms ranked 1,001 to 3000) are assigned to the Russell 2000. After this assignment, Russell determines (as of July 30th) the portfolio weights within each index after float-adjusting the market capitalization. The float adjustment essentially excludes all non-financial blocks (Russell, 2023).[14]

Many mid-cap institutional owners benchmark to the Russell indexes, creating trading pressure for stocks at the top of the Russell indexes, because they have larger portfolio weights in the index, while having very little demand for stocks at the bottom of the Russell indexes. Because there is little difference in firm size very near the cut off, this quasi-experimental setting that compares firms at the bottom of Russell 1000 to those at the top of Russell 2000 could create "as good as random" variation in institutional ownership based on a mechanical index construction rule. Since the trading pressure comes from passive indexes, these findings have been interpreted as causal effect of passive/institutional ownership. Prior studies (e.g., Chang, Hong, and Liskovich, (2014), Appel, Gormley, and Keim (2016) and Crane, Michenaud and Weston (2016)) have demonstrated that passive / institutional ownership is larger at the top of the Russell 2000 than at the bottom of the Russell 1000.

We find that the float adjustment based on nonfinancial block ownership is large. Consider Figure 2, Panel A which presents a plot of the total proportion of shares held by nonfinancial blockholders against the Russell index ranking based on Russell's actual index ranks. The effect is visually obvious. Firms just to the left of the cutoff have a large fraction of shares held by

[14] As described in Russell (2023) some examples of stocks that are excluded in the float adjustment calculation are: shares directly owned by state, regional, municipal and local governments, shares held by directors, senior executives and managers of the company, and by their family and direct relations, and by companies with which they are affiliated, shares held within employee share plans, shares held by public companies or by non-listed subsidiaries of public companies, shares held by an investor, investment company or an investment fund for strategic reasons.
We noted that detailed description of the float adjustment can also be found in Appel, et al. (2016), Crane, Michenaud and Weston (2016).

nonfinancial blockholders while firms at the top of the Russell 2000 (just to the right) have very little. The discontinuity is roughly 30% of the shares outstanding. Importantly, the float adjustment pushes firms with large, nonfinancial block ownership to the bottom of the Russell 1000 and pushes firms with very little nonfinancial block ownership to the top of the Russell 2000. Thus, distance to the threshold is not as good as random but is instead a direct function of nonfinancial block ownership.[15]

Panel B of Figure 2 plots index funds ownership against Russell's float adjusted ranks. The difference in nonfinancial blocks (Panel A) dwarfs the difference in index fund ownership (Panel B). As Panel B of Figure 2 demonstrates, the discontinuity of index funds is only around 2% of the firm's shares, less than a tenth of the 30% discontinuity for nonfinancial blocks. Thus, different governance patterns on either side of the Russell cutoff documented in prior studies, could be driven by index funds, or by nonfinancial blocks.

Panels A-C of Figure 3 show that the discontinuity in nonfinancial blocks exists for individuals, hedge funds and other private blocks separately. Notably, we do not find a discontinuity for institutional block ownership around the Russell cutoff.[16] These figures further highlight that the largest discontinuity around the Russell index cutoff is nonfinancial block ownership.

Table 6 presents the descriptive statistics corresponding to Figures 2 and 3. Table 6, Panel A presents the ranking of firms based on Russell's index weights and reports the ownership by

[15] Some studies acknowledge that the float adjustment may contaminate identification, and therefore also report analysis by sorting the firms using unadjusted market capitalization, as opposed to the Russell weights. However, our analysis presented in Panel B of Table 6, shows little variation in the holdings of index funds around the Russell cutoff when firms are ranked based on the CRSP market capitalization (6.11% versus 6.77% for the 250 firms at the bottom of the Russell 1000 compared to the 250 firms at the top of the Russell 2000). Nonetheless, when firms are ranked by the unadjusted market capitalization the largest difference observed around the Russell cutoff is for nonfinancial blocks.

[16] In unreported analysis we do find a discontinuity in the total fraction of shares held by financial institutions, consistent with Boone and White (2015) and Crane, Michenaud, and Weston (2016))

different types of shareholders for the 250 and 100 firms ranked at the bottom of the Russell 1000 index. As reported in Column 1 (4), firms with the smallest weights in the Russell 1000 have 5.74% (4.66%) of the outstanding shares held by index funds. Column 2 (5) reports that for the firms in the top of the Russell 2000 index, 7.41% (7.81%) are held by index funds. Similar patterns are reported in Panel A of Table 6 for the total fraction of shares held by financial institutions. These large differences are obviously the underlying motivation for the use of the Russell setting.

However, our analysis reveals a confounding and substantially larger difference in nonfinancial block ownership. As Column 2 (5) of Panel A of Table 6 reports, the 250 (100) firms with the biggest weights in the Russell 2000 have only 3.96 (2.81%) of their shares held by a nonfinancial block, while the corresponding smallest firms at the bottom of the Russell 1000 is 8.9% (18.2%), as reported in in Column 1(4).[17] Thus, as Table 6, Column 6 reports, when comparing the 100 companies on each side of the Russell 1000-2000 cutoff, in absolute terms, the discontinuity for index funds is 3.15%, while for nonfinancial blocks it is 15.43%, i.e., almost 5 times as large.

The difference in ownership patterns is economically large and can alter the interpretation of the findings of prior studies. Consider, as an example, the results in Appel, Gormley, and Keim (2016) who argue that passive investors monitor actively. Specifically, they find that firms in the top of the Russell 2000 are more likely to be governed via publicly observable means. However, as we show, firms in the bottom of the Russell 1000 index have substantially larger nonfinancial block ownership. It is no longer clear whether passive index funds take a more active role, or whether nonfinancial blockholders are less likely to engage in external monitoring because they

[17] To provide a comprehensive picture, Table 5 also reports figures for the total fraction of shares held by: financial institutions who each hold a 5% block, financial institutions, and mutual funds.

monitor quietly behind the scenes. The large wedge in nonfinancial block ownership confounds any result where nonfinancial blockholders might (also) play a role.

Dividend payments are another example. Crane, Michenaud, and Weston (2016) argue that institutions cause firms to disgorge more cash. However, given the large discontinuity in nonfinancial block ownership around the Russell cutoff, their findings may also be interpreted as evidence that nonfinancial blockholders pay less dividends because the marginal value of external monitoring is smaller for closely held firms. Either way, agency costs drive dividend payments, but the mechanism at play is different. Similarly, Boone and White (2015) find that firms with higher institutional ownership disclose more information, but their findings could also be interpreted as evidence that firms with nonfinancial blockholders disclose less information.

We test whether the block ownership patterns we uncover alter the results of past Russell studies. To this end, we replicate the analysis of Appel, Gormley and Keim (2016), henceforth "AGK". It is important to note that if there is no clear identification in this setting, there is no way to "control" for the endogeneity of nonfinancial and/ or financial/index ownership without adding some additional source of identification that is exogenous to both nonfinancial and financial/index ownership. Our analysis in this section is intended to demonstrate how robust the results of prior studies are to relaxing the assumption of local continuity around the Russell threshold. We start by following AGK in estimating a first-stage regression as in:

(1) $Passive\%_{it} = \eta + \lambda R2000_{it} + \sum_{n=1}^{N} \chi_n [Ln(Mktcap_{it})]^n + \sigma \text{Ln}(Float)_{it} + \delta_t + u_{it}$

Where $Passive\%_{it}$ is a measure of passive index ownership in year *t* for firm *i*. $R2000_{it}$ is a dummy variable equal to one if the firm is in the Russell 2000. $Mktcap_{it}$ is the total market capitalization based on the relevant share price times total shares outstanding on the CRSP database. *N* is equal to 3, and thus our specification includes a third-order polynomial expansion

of log market capitalization (as in AGK). *Float* is our estimate of the float adjusted shares outstanding. Our estimate is the same as that used in AGK. We also include year dummies δ_t. Standard errors are clustered at the firm-year level.[18]

The results of the first stage are reported in Table 7 column 1, and similar to those reported in AGK in that we find strong evidence in the first stage estimation that Russell inclusion is a relevant variable to predict passive ownership. In the next step, we estimate a second stage where we measure the effect of instrumented passive ownership on an outcome variable, Y_{it}. We focus on three main variables analyzed by AGK: whether there was an activist event, whether the company has dual class shares, and the proportion of outside directors.

(2) $Y_{it} = \alpha + \beta \widehat{Passive\%}_{it} + \sum_{n=1}^{N} \theta_n [Ln(Mktcap_{it})]^n + \gamma \text{Ln}(Float)_{it} + \delta_t + \varepsilon_{it}$

Our second stage estimates show that instrumented passive ownership has a positive and statistically significant effect on all three governance measures (Table 7, columns 2, 4, and 6). Overall, our results are similar to those presented in the AGK. They show that firms with larger passive ownership are less likely to experience an activist event (Column 2), less likely to have dual class (Column 4) and more likely to have outside directors (column 6).

To test whether the presence of nonfinancial block ownership confounds the latter analysis, we present an alternative specification for our second stage estimates. In our alternative setting, we augment the second stage regressions to incorporate the proportion of block ownership in the firm as in:

(3) $Y_{it} = \alpha + \beta \widehat{Passive\%}_{it} + \pi_1 NonFinBlock_{it} + \pi_2 NonFinBlock_{it} \text{R2000} +$

$\sum_{n=1}^{N} \theta_n [Ln(Mktcap_{it})]^n + \gamma \text{Ln}(Float)_{it} + \delta_t + \varepsilon_{it}$

[18] The AGK analysis was conducted for the years 1998-2006. Unfortunately, Russell is not sharing the Russell weights freely. We were able to obtain the Russell weights for the 2009-2013 period, and thus our replication is for the 2009-2013 period, but our results are very similar to those of AGK.

$NonFinBlock$ is the total fraction of nonfinancial blocks (a nonfinancial blocks is equal to at least 5% of the company's outstanding shares, and does not file a 13F). By including nonfinancial block ownership only in the second stage, we are testing whether the variation in instrumented passive ownership is strongly correlated enough with nonfinancial block ownership to change the magnitude of the results presented in the baseline estimation.

We note that we cannot simply include block ownership in the two-stage-least-squares estimation in both stages as an additional control variable. The reason is that block ownership may be endogenously determined along with passive ownership and governance. To the extent that is true, neither passive ownership nor block ownership are exogenous variables that can be identified in this setting. If there is another endogenous regressor, we would need another source of exogenous variation. As a result, our alternative specification is meant to be descriptive and only speak to the magnitude of the correlation between instrumented passive ownership and block ownership around the threshold.

It is important to note that our alternative regression specification includes an interaction term between the total nonfinancial block ownership and the dummy variable for Russell 2000 index inclusion. The Russell float adjustment affects firms on one side of the threshold (the largest firms at the top of Russell 2000). As a result, we only expect total nonfinancial block ownership to correlate with instrumented passive ownership for firms that are heavily float adjusted with large index weights included in the top of the Russell 2000 index which is only on one side of the discontinuity. By including the interaction of the Russell 2000 index dummy variable with the proportion of total nonfinancial bock ownership, we can identify the extent to which block ownership may confound the estimation of any causal impact of passive ownership.

Table 7, Columns 3, 5, and 7 present the results of our alternative augmented second stage regression. In the case of an activist event, we find that including block ownership (column 3) has roughly the same economic effect as that reported in AKG (column 2), but with weaker statistical significance. Importantly, for both dual class structure (columns 4-5) and the proportion of outside directors (columns 6-7), we find that the magnitude of the coefficient on instrumented passive ownership is attenuated, and the results are no longer statistically significant. For example, in column 3, which replicates the second stage of AGK (equation 2 above), similar to AGK, we find that *Index fund total* has a coefficient of -5.87, significant at the 1% level. In contrast, in column 4 which reports the alternative model (equation 3 above), *Index fund total* is insignificant (with a coefficient of -2.32) indicating that the results of AKG disappear once the ownership of nonfinancial blocks is accounted for.

The correlation between passive ownership and nonfinancial blocks appears to be large enough to confound any causal effect of passive ownership governance. We find that forming bandwidths around the Russell inclusion threshold inevitably sorts on block ownership in a way that puts firms with large nonfinancial block ownership just above the Russell 1000-Russell 2000 cutoff, and small block ownership just below this cutoff. Since block ownership is strongly related with measures of corporate governance, the assumption of local continuity is clearly violated in this setting.

6. Market Response to Blockholder Entry

If nonfinancial blocks actively monitor and engage with management, while financial blocks tend to monitor more passively by focusing on standard observable measures and outcomes, the market should respond more positively when nonfinancial blocks enter firms in which close

monitoring may be especially valuable. In this section, we test this hypothesis using the disclosures of block ownership in our sample.

6.1. Event study returns.

Table 8 presents the results of an event study and reports cumulative abnormal returns around all 13D filings for a six-day window from filing day *t* to *t*+5, [0, +5]. Panel A presents average abnormal returns and standard errors for the different types of blockholders. For all categories, mean abnormal returns around the filing data are positive and statistically significant – ranging from about 0.7% to 1.5%. As expected, the market typically interprets the entrance of a 13D blockholder as good news for shareholders.

The market response around the entrance of nonfinancial and financial blocks is almost identical – it is 1.2% and 1.3%, respectively, and the difference is not statistically significant. In untabulated results, the market response around the entrance of nonfinancial insiders and nonfinancial outsiders is 1.2% and 1.0%, respectively. Both of these figures are statistically significant at the 1% level but are not statistically significantly different from each other indicating that the market responds similarly to the entrance of nonfinancial insiders and nonfinancial outsiders.

In our next set of tests, we dig deeper into the cross-sectional variation in market responses to block entry. Demsetz and Lehn (1985) hypothesize that the benefits of monitoring are elevated in high-risk environments. If nonfinancial blockholders monitor more closely, there should be a positive announcement return upon the entry of nonfinancial blocks because nonfinancial blocks may be particularly suitable for firms that require close monitoring. We hypothesize that nonfinancial blocks that provide stability because they tend to stay for the long term (as reported

in Table 1) will be beneficial because they provide stability in uncertain and unstable environments, i.e., when high volatility prevails. Accordingly, In Panel B we split our sample based on return volatility (defined in the Glossary of Variables). Indeed, we find that the announcement of entry by nonfinancial blocks results in a strong positive abnormal return. Results are significantly larger for firms with high return volatility. When a nonfinancial block enters a firm with an above-median volatility, the abnormal return is 1.7% (significant at the 1% level).[19] When a nonfinancial block enters a firm with a below-median volatility, abnormal return is equal to 0.03% (significant at the 10% level), and the difference is equal to 1.4% (significant at the 1% level). Thus, the market responds particularly positively to nonfinancial blockholders entering volatile firms.

By contrast, we find a small (0.4%) and statistically insignificant difference in market reaction to the entry of financial blockholders across low- vs high-volatility firms. The difference between high- versus low-volatility firms for nonfinancial blocks (1.4%) versus that of financial blocks (0.4%) is significant at the 10% level, further indicating that particularly nonfinancial blocks are beneficial for volatile firms.

In addition to firm risk, asymmetric information is likely to drive differences in the marginal costs and benefits of active monitoring by blockholders. Less public information is available for small firms; therefore, the marginal cost of close monitoring may be higher in small firms (Helwege, Pirinsky, and Stulz (2007)). Additionally, Grossman and Hart (1980) argue that disperse ownership in large firms may raise agency conflicts that drive down the benefits of

[19] Abnormal returns are defined using the Daniel, Grinblatt, Titman, and Wermers (1997) characteristic-based adjustment during the [0, 5] window following the 13D filing announcement date.

monitoring on the margin. Thus, nonfinancial blocks may have more incentive to monitor smaller firms where monitoring is particularly valuable.

In Panel C of Table 8, we report the market reactions to nonfinancial block entry split by median firm size. The CARs for large-small firms around the entrance of nonfinancial blocks is 1.8% (significant at the 1% level), while for financial blocks this figure is equal 0.5% (insignificant). The difference between these two figures is significant at the 1% level. Thus, consistent with our hypothesis, particularly nonfinancial block ownership is valued by the market in small firms where the marginal value of active monitoring via active monitoring is expected to be high.[20]

In sum, in this section we document that different types of blocks are beneficial in different types of companies. We find that the market particularly values nonfinancial blocks when they enter small or risky firms where we expect the marginal value of active, close, and nonfinancial monitoring to be particularly high.

6.2. Structural model estimates

Our analysis in section 6.1 shows that the market responds positively to the announcement of a block owner and especially to the announcement of a nonfinancial block for small and volatile firms. However, as noted above, the decision of blockholders to endogenously choose which firms to enter may confound this analysis if some of the market reaction comes from the "stock picking effect" of investors choosing undervalued stocks. Similarly, because owners can strategically choose to be active or passive, some of the announcement return may be driven by endogenous

[20] In addition to firm size and return volatility, we also estimated similar sample splits based on stock market volatility and found similar results.

matching leading to sample selection bias. In recent work, Albuquerque, Fos, and Schroth (2022) develop a structural model to decompose announcement returns into each of these three separate components (activism, stock picking, and selection).

The model in Albuquerque, Fos, and Schroth (2022) focuses on an investor's choice to self-identify as active blocks (filings 13Ds) or as passive (filings 13Gs). Since many investors file both 13D and 13G, investors clearly weigh the expected return of a Schedule 13D filing, minus some cost of being an activist, against the return from a 13G filing. The assumption is that the return effect from a 13D gives an imprecise view of the potential profits from activism, not accounting for costs. The simple model yields a joint distribution of filing choices and announcement returns. Since we do not observe returns for Schedule 13D if an investor opts for Schedule 13G, there is a sample selection factor in the returns for both types of filings. By analyzing the return data and filing choices jointly, the estimation of the parameters of the joint distribution can determine unseen values like expected returns and activism costs, as well as offer an insight into the factors influencing Schedule 13D announcement returns. The parameters of the joint distribution in the structural model can be estimated by maximum likelihood to recover how much of each component are supported in the data. We follow their methodology precisely within our sample but focus on the split between financial blockholders vs. nonfinancial blockholders – and then further sub-divide the sample based on size and return volatility.

Table 9 presents the results of our estimation. In the full sample we estimate a total announcement return of 3.3 percent. Activism has the largest component with selection bias contributing only about 1 or 2 percentage points on average. The stock selection effect is negative, as expected, but less than a percentage point on average across the announcement returns. For

comparison, our estimated magnitudes are similar to those in Albuquerque, Fos, and Schroth (2022).

In our sample splits however, we find that the treatment effect of activism expected by the entry of a block owner is higher if entry is by a nonfinancial blockholder. For example, in the full sample we find an activism announcement effect of 5.87% for nonfinancial blockholders and a lower effect of 5.03% for financial blockholders. Further, the differences are even larger for small and volatile firms, consistent with our regression-based models in section 6.1. The endogenous nature of ownership and expected returns does not appear to contaminate the event study returns around blockholder entry announcements. We continue to find that nonfinancial blockholders are expected to govern as activists. We interpret these results as consistent with the hypothesis that the market expects the entry of this ownership form to drive more value through active corporate governance.

7. Governance Evolution, Firm Age, and Type of Blockholder

To further address endogenous matching concerns, we focus in this section on the evolution of block ownership and governance practices over the lifecycle of the firms in our sample. Our motivation for this analysis stems from the predetermined nature of firm maturity. As we show, the presence of nonfinancial blockholders is largely predetermined by initial conditions at a firm's founding. This natural feature of business creation is distinct from the presence of a typical financial blockholder which evolves as the ownership of a firm become more disperse as firms mature. Thus, the governance patterns of young companies with nonfinancial blockholders appears to be more path dependent, and the dynamic selection bias of endogenous matching may be less severe, conditional on firm maturity. Moreover, if we can establish that the governance patterns of

firms with a nonfinancial block consistently differ from those of firms with a financial block that are in the same phase in the firm's lifecycle, this would provide further evidence that governance patterns consistently vary by block type.

Prior studies have shown that as a public firm matures, insiders tend to sell their shares (Helwege, Pirinsky, and Stulz (2007)) and block ownership declines (Edmans and Holderness (2017)). Given that Johnson, Karpoff, and Yi (2018) demonstrate a life cycle pattern in corporate governance, it may be that the patterns in ownership and governance are closely related. Following these studies, we report in Figure 1 the total fraction of shares held by nonfinancial and financial blocks, depending on the firm age (measured as the number of years the firm has been listed on Compustat/CRSP). Figure 1 shows a clear block ownership life cycle: companies are less likely to have a nonfinancial block, and more likely to have a financial block as they age.

We use this time series variation in block ownership to study the effect on corporate governance. In each of the three panels included in Table 10 we repeat our analysis above, estimate results separately three age terciles: Young (0-4 years), mid-aged (older than 4 years to 12 years), and mature firms (older than 12 years). Panel A of Table 10 reports our tests using textual analysis in 13D filings and Panel B focuses on the item 4 stated objectives. For each age tercile, we report separate figures for nonfinancial blocks and financial blocks.

Two main patters emerge from our analysis. First, our results point towards a strong life-cycle component in the joint dynamics of ownership and corporate governance. As firms mature, they tend to adopt more external governance mechanisms that coincide with the shift in block ownership from nonfinancial to financial block ownership. This evolution drives the introduction of external monitoring practices that are suited for financial institutions that may have a higher marginal cost of delegated monitoring and a greater potential for agency costs within firms. For

example, Panel A shows that as companies mature, both financial and nonfinancial shareholders are more likely to state that they will govern by striving to "maximize shareholder value". On the other hand, as firms mature, both nonfinancial and financial blocks are less likely to govern by "Elect/Nominate/Vacancy", i.e., being involved in appointing directors.

However, we are particularly interested in the second point which is demonstrated in the Table 10 Panels for both age terciles: consistent differences prevail in the governance practices of firms with nonfinancial blocks versus those with financial blocks. As will be detailed, we find that financial blocks consistently focus more strongly on practices that focus on financial performance, while nonfinancial blocks focus more strongly on active monitoring.

Specifically, in both Panel A and Panel B of Table 10 all the differences between nonfinancial and financial blocks are in the expected direction for all variables and for all age terciles (i.e., consistent with the patterns documented above in Tables 3 and 4, respectively), and most differences are statistically significant. For example, as Panel A of Table 10 indicates, in young firms, nonfinancial blocks use the word "undervalued" in 0.78% of 13D filings, while financial blocks are likely to use this word in 7.88% of the filings of young firms, i.e., approximately 10 times more frequently, and the difference is statistically significant. Taken together, we view these figures as providing further support for the conclusion that differences in governance practices are not driven solely by natural governance evolution over a firm's life cycle. Rather, the changes in governance practices are due, at least partially, to the types of blockholders that exist in a firm.

Naturally, some types of blockholders are attracted to certain types of firms, even within each age category. However, the different governance practices we document specifically in the youngest age bracket, which are in all three panels of Table 10, for all variables, in the expected

direction, alleviate some endogeneity concerns. The predetermined nature of nonfinancial block owners at a company's founding, when the founding blockholders choose their preferred governance practices, mitigates endogenous selection if we maintain the assumption that early blockholders are path dependent and initial assignment of founders is as good as random, at least with respect to corporate governance decisions. Thus, the patterns observed in young firms suggest that nonfinancial blocks design corporate governance that is consistently different from financial blockholders. While governance is correlated with maturity, nonfinancial blockholders appear to govern differently from financial blocks in systematic ways.

8. Summary and Conclusions

Our analysis of a rich and unique dataset generates fresh insights on the governance practices used by different types of blockholders. Our study makes several contributions. First, we provide the first textual analysis of all 13D filings and find significant economic differences in the language employed by different types of blockholders. Our analysis demonstrates that nonfinancial blocks tend explicitly self-identify as active blockholders and make statements describing how they intend to achieve this goal, whereas financial blocks tend to focus on financial performance metrics. These findings suggest that financial blocks tend to focus on external observable measures and mechanisms, while nonfinancial blocks rely more on governance through active monitoring and engagement.

Second, we make a methodological contribution that highlights a serious limitation for studies using the Russell index setting for identification. Our results suggest that some prior results are not robust when nonfinancial blocks are accounted for. Finally, we show that nonfinancial blocks are particularly valued by the market in firms for which close monitoring is likely to be

valuable (i.e., small and volatile firms) suggesting that a good match between the block-type and the type of company is rewarded by the market. Overall, our work highlights the importance of blockholder heterogeneity in driving differences in governance contracting and corporate decision making.

Glossary of Variables

Variable name	Definition	Source
Abnormal return	The firm's stock return minus the return of its characteristic matched benchmark portfolio using the methodology in Daniel, Grinblatt, Titman, and Wermers (1997)	CRSP-Compustat
Activist event occur?	Equal to one if an activist event occurred in company i in year t, and zero if it did not.	Brav, Jiang, Partnoy, and Thomas (2008) and Brav, Jiang, and Kim (2015) who kindly shared their data
Average support say-on-pay	Average support rates directors received on say-on-pay from all shareholders	ISS voting analytics
CEO tenure	The CEO's tenure	GMI
Dual class	A binary variable equal to one if the company has dual class shares in year *t*, and zero if it does not.	GMI
Financial (block)	A binary variable that equals one if the blockholder does not file 13F filings.	13F filings
Hedge fund (block)	A binary variable equal to one if the firm is held by at least one hedge fund or private equity fund block.	Classified manually by authors as described in paper
Individual (block)	A binary variable equal to one if the firm is held by at least one individual blockholder.	Classified manually by authors as described in paper
Insiders	*Insiders* are blockholders that file in a given company SEC Form 3, 4, or 5.	Assembled by authors
Institutional (block)	A binary variable equal to one if the firm is held by at least one block held by a 13F filer.	Classified manually by authors as described in paper
Liquidity	Liquidity measure consistent as defined in Amihud (2002) (average absolute daily return divided by daily dollar volume during the year)	CRSP
Log market capitalization	log(prcc_f*csho*1000000)	CRSP-Compustat
Log sigma	We first calculate the standard deviation of the residuals in a regression of the firm's daily stock return against the CRSP value-weighted return over the course of the fiscal year. The logarithm of 1 plus the resulting standard deviation of these residuals is the risk measure. This variable is winsorized at the sample 1st and 99th percentiles.	CRSP

Variable name	Definition	Source
Non-executive meetings	An indicator variable that equals one if the board holds non-executive meetings, i.e., if doutsidemeets=="Yes" or bdoutsidemeets=="YES", and 0 if bdoutsidemeets=="NO" or "No".	GMI ownership
Nonfinancial (block)	Estimated by authors, a binary variable that equals one if the blockholder does not file 13F filings.	13F filings
NonFinBlocks	is the total fraction of nonfinancial blocks (a nonfinancial block is equal to at least 5% of the company's outstanding shares, and does not file a 13F).	Factset
Outsiders	Outsiders are blockholders that do not file SEC Form 3, 4, or 5 in a given company.	Assembled by authors
Other private (blocks)	A binary variable equal to one if the firm is held by at least one block held by a non-13F filer that is not categorized as an individual or a hedge fund (e.g., a private company or a public company).	Classified manually by authors as described in paper
Outside directors	Percent of outside directors. 1-(directorsinside/directorstotal)	GMI ownership
Poison pill	An indicator variable that equals one if tdpoisonpill=="Yes". The latter is defined by GMI as: "Indicates if there is a plan in place to increase voting rights of shareholders if a hostile bidder acquires a threshold amount of a company's stock, which massively dilutes the bidder's holdings and makes it prohibitively expensive for the bidder to complete the acquisition."	GMI takeoverdefense
ROA	Income before extraordinary items/total assets.	Compustat
Shark attack	An indicator variable that equals one if the company was targeted by an activist at least once during the year examined.	SharkWatch
Size	Market capitalization (price * number of shares outstanding)	CRSP
Tobin's Q	(Total assets – book common equity + market common equity)/Total assets. This variable is winsorized at the sample 1st and 99th percentiles.	Compustat
Total fraction of shares held by nonfinancial blockholders	Estimated by authors, based on Factset data.	Factset
Total fraction of shares held by financial blockholders	Estimated by authors, based on Factset data.	Factset
Volatility	Daily stock return volatility over the previous year	CRSP

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Table 1: Summary Statistics

This table reports summary statistics on nonfinancial and financial blocks during the 2001-2014 period. A blockholder is defined as an investor who owns at least 5% of a firm's outstanding shares. A *Nonfinancial* block is defined as a block that does not file a 13F, whereas a *Financial* block is defined as a block that files a 13F. Implied duration is estimated by regressing an indicator variable documenting whether the observation year is the last year the block existed, conditional on being a nonfinancial (financial) block, and taking the inverse of the constant.

	Blockholder Type	
	Nonfinancial	Financial
Agent for other investors?	No	Yes
Average number of blocks held	1.18	10.68
Block size / outstanding shares (%)	15.7	8.1
Implied duration of block (years)	3.57	2.7
Blockholder within 50 miles of firm (%)	12.4	7.0
Total shares held by blockholder (%)	13.88	13.98
Firms with at least one such block (%)	52.44	64.18
Average firm market capitalization (Billions)	15.53	28.45
Average firm age (since IPO)	13.9	17.8

Table 2: Frequency of Filings by Blockholder Type

This table reports summary statistics on the frequency of 13D and 13G filings broken down by nonfinancial and financial blocks during the 2001-2014 period. Blockholders identify as active shareholders by filing form 13D versus passive shareholders who file form 13G. A *Nonfinancial* block is defined as a block that does not file a 13F, whereas a *Financial* block is defined as a block that files a 13F. *Individual* are individual blockholders; *Hedge fund* blocks includes hedge funds and private equity investors; *Other private* include blockholders who do not file a 13F filing, and do not fall under the *Individual* or *Other private* category; *Institutional* blocks are defined as investors who are required to file form 13F who do not fall into the remaining categories. *Short Term* (*Long Term*) investors are *Financial* blockholders with average holding periods below (above) the sample median based on 13D filings only. 13D/A (13G/A) indicates amendments filed to the 13D (13G) form. *Insiders* (*Outsiders*) are blockholders that do (do not) file SEC Form 3, 4, or 5 (in a given company). We use the latter classification to split the nonfinancial blocks. 13D/A (13G/A) indicates amendments filed to the 13D (13G) form.

	Investor Type (2 groups)		Investor Type (4 groups)				Investor Horizon (Financial)		Insiders/Outsiders (Nonfinancial)	
Filing Type	Nonfinancial	Financial	Individual	Hedge Funds	Other Private	Institutional	Short Term	Long Term	Insiders	Outsiders
13D (%)	45.4	7.1	51.2	9.6	45.2	6.6	16.2	8.5	57.7	35.1
13G (%)	54.5	92.9	48.8	90.4	54.8	93.4	83.8	91.5	42.3	64.9
Total	88,729	119,164	38,036	91,403	40,039	38,344	25,590	40,160	29,770	53,262
13D/A (%)	48.3	10.7	49.9	14.3	51.3	8.3	28.6	11.3	60.0	39.8
13G/A (%)	51.7	89.3	50.1	85.7	48.7	91.7	71.4	88.7	40.0	60.2
Total	221,729	360,389	92,300	271,484	98,581	119,753	58,341	92,568	53,486	71,830

Table 3: Stated Objectives in 13D Filings broken Down by Investor Type

This table reports the stated objectives of blockholders, which are identified based on the most common one-, two-, three-, and four-word phrases used in Item 4 of Form 13D in which blockholders state the purpose of their transaction (standard "stopwords" and boilerplate phrases are discarded). Filings cover the period 1998 – 2018 and include all filings from the SEC website. This table tabulates percentages of filings that include various stated objectives for different types of investors. Investors are grouped into two categories in the first two columns based on whether they are *Nonfinancial* or *Financial* blocks. *Nonfinancial* blocks are held by blockholders that do not file a 13F form, while *Financial* blocks are held by blockholders that file a 13F form. The second set of columns present results for four block types: *Individual*, *Hedge fund*, *Other private blocks* and *Institutional*. *Individual* are individual blockholders; *Hedge fund* blocks includes hedge funds and private equity investors; *Other private* include blockholders who do not file a 13F filing, and do not fall under the *Individual* or *Other private* category; *Institutional* blocks are defined as investors who are required to file form 13F who do not fall into the remaining categories. The final set of columns classifies *Financial* blockholders into short-term and long-term investors based on the mean investment horizon for a blockholder across all blocks requiring form 13D during the sample period. Short-term (long-term) investors are defined as those with mean investment horizon below (above) the median value in the sample. Appendix B specifies how each of the item 4 categories where defined.

	2 Investor Types			4 Investor Types				Investor Horizon		
Item 4 Topic	Nonfinancial	Financial	Difference (Nonfin. - Fin.)	Individual	Hedge Funds	Other Private	Institutional	Short-Term	Long-Term	Difference (ST - LT)
Maximize Shareholder Value	1.8	7.9	-6.1***	1.2	8.7	1.7	4.9	9.1	6.5	2.6***
Undervalued	2.5	20.3	-17.8***	1.8	19.7	2.7	10.0	27.8	11.3	16.5***
Max. Sh. Value / Undervalued	4.0	25.6	-21.6***	2.8	26.1	4.0	13.5	33.8	16.0	17.8***
Economic/Market/Industry	16.1	37.5	-21.4***	11.5	43.0	18.3	17.6	51.1	21.7	29.4***
Capital Structure	2.0	16.5	-14.5***	1.3	17.0	2.2	4.8	26.0	6.0	20 .0***
Dividend	34.3	26.1	8.2***	37.7	29.3	31.6	21.6	30.7	21.7	9.0***
Repurchase	2.1	3.8	-1.7***	0.9	3.7	2.9	4.7	4.0	3.6	0.4***
Restructuring	1.5	10.1	-8.6***	0.8	10.6	1.8	2.1	17.3	2.6	14.7***
Elect/Nominate	10.4	11.7	-1.3***	6.7	12.5	12.9	14.1	18.4	21.2	-2.8***
Vacancy	25.4	10.4	15.0***	30.1	11.8	22.2	12.8	11.8	11.4	0.4***
Elect/Nominate/Vacancy	32.8	19.8	13.0***	34.5	21.5	31.9	24.6	9.2	11.6	-2.4***
Operations	14.5	42.3	-27.8***	11.1	46.0	16.2	19.0	58.1	24.4	33.7***
Number of Observations	29,754	6,637		12,958	6,693	12,543	1,936	3,391	2,897	

Table 4: Language Use of Stated Objectives of 13D Filings

This table reports various textual measures for Item 4 of Form 13D in which blockholders state the purpose of their transaction. Filings cover the period 1998 – 2018 and include all filings from the SEC website. This table reports a *Specificity* measure which is defined as the number of specific places, people, organizations, dates, times, and quantities in Item 4 using the Stanford Named Entity Recognizer (NER) as a percentage of all words. Additionally, we calculate and report wordcounts (per thousand words) using a set of word lists from the Loughran and McDonald (2011) dictionary to capture the language tone. The variables, Weak Modal, Strong Modal, Uncertainty measures, Negative, Positive and are defined as the number of words in Item 4 from the corresponding word list divided by the total number of words in Item 4. For expositional convenience values are multiplied by 1000. Investors are grouped into two categories in the first two columns based on whether they are *Nonfinancial* or *Financial* blocks. *Nonfinancial* blocks are held by blockholders that do not file a 13F form, while *Financial* blocks are held by blockholders that file a 13F form. The second set of columns present results for four block types: *Individual*, *Hedge fund*, *Other private blocks* and *Institutional*. *Individual* are individual blockholders; *Hedge fund* blocks includes hedge funds and private equity investors; *Other private* include blockholders who do not file a 13F filing, and do not fall under the *Individual* or *Other private* category; *Institutional* blocks are defined as investors who are required to file form 13F who do not fall into the remaining categories. The final set of columns classifies *Financial* blockholders into short-term and long-term investors based on the mean investment horizon for a blockholder across all blocks requiring form 13D during the sample period. Short-term (long-term) investors are defined as those with mean investment horizon below (above) the median value in the sample

	2 Investor Types			4 Investor Types				Investor Horizon		
Language Measure	Nonfinancial	Financial	Difference (Com. - Fin.)	Individual	Hedge Funds	Other Private	Institutional	Short-Term	Long-Term	Difference (ST - LT)
Specificity (%)	5.2	4.1	1.1***	4.8	4.2	5.5	5.0	3.8	4.6	-0.9***
Weak Modal	7.1	11.3	-4.2***	6.7	11.7	7.2	9.3	12.2	10.3	1.9***
Strong Modal	2.4	1.8	0.6***	1.8	2.0	3.1	2.1	1.6	2.0	-0.4***
Weak - Strong Modal	4.7	9.5	-4.8***	4.9	9.8	4.1	7.1	10.5	8.2	2.3***
Uncertainty	8.4	13.2	-4.8***	7.8	13.7	8.6	10.7	14.3	11.9	2.4***
Negative	8.8	7.7	1.1***	8.8	7.9	8.9	8.0	7.5	7.9	-0.5***
Positive	3.9	5.6	-1.7***	3.4	5.6	4.3	5.0	6.0	5.1	0.9***
Negative - Positive	4.8	2.1	2.7***	5.4	2.3	4.6	3.0	1.4	2.8	-1.4***
N	30,353	6,716		12,958	6,693	12,679	1,955	3,391	2,897	

Table 5: Nonfinancial Versus Financial Block Ownership and Governance

This table reports OLS regressions for the 2001-2014 period. The dependent variables measure a range of corporate governance practices (defined in the Glossary of Variables). In Panel A the variable *Nonfinancial* is an indicator that equals one if the company is held by at least one nonfinancial block (a blockholder that does not file a 13F form), and *Financial* is an indicator that equals one if the company is held by at least one financial block (i.e., a blockholder that files the13F form). In Panel B *Individual* is a binary variable equal to one if the firm is held by at least one block held by an individual. *Hedge fund* is a binary variable equal to one if the firm is held by at least one hedge fund or private equity fund block. *Other private* is a binary variable equal to one if the firm is held by at least one non-13F filer block that is not an individual or a hedge fund block (e.g., a private company or a public company). *Institutional* is a binary variable equal to one if the firm is held by at least one financial institution that does not fall into the remaining categories. In both panels, year and industry fixed effects are included. Errors are clustered by company-year. All variables are defined in the Glossary of Variables. T-statistics are reported in brackets, ∗ <.01. ∗∗ <.05; ∗∗∗ <.01.

	Shark attack	Shareholder proposal	say-on-pay	Poison pill	CEO tenure	Outside directors	Non-exec. meeting
	(1)	(2)	(5)	(6)	(8)	(10)	(12)
Nonfinancial	-0.007*	-0.026***	0.012*	-0.071**	1.939***	-0.026***	-0.039***
	(-2.01)	(-3.66)	(2.080)	(-2.90)	(5.810)	(-9.67)	(-4.70)
Financial	0.013***	-0.052***	-0.008	0.042**	0.082	0.017***	0.067***
	(4.100)	(-4.20)	(-1.48)	(2.880)	(.240)	(5.240)	(7.170)
Ln(Size)	0	0.096***	-0.006***	-0.016***	-0.292***	0.011***	0.047***
	(.070)	(22.750)	(-5.94)	(-3.99)	(-3.28)	(12.310)	(8.270)
ROA	0.000*	-0.019	0.011	-0.024	2.065**	0.000	-0.011
	(2.050)	(-1.54)	(1.780)	(-1.56)	(2.320)	(-0.76)	(-1.17)
Tobin's Q	-0.005***	-0.019***	0.007***	-0.001	0.295**	-0.006***	-0.017***
	(-6.42)	(-4.68)	(4.890)	(-0.14)	(2.950)	(-6.89)	(-4.41)
Ln(sigma)	-0.031	0.660*	-0.667**	-0.417	-11.553	0.210**	-0.327
	(-0.52)	(2.030)	(-3.12)	(-1.24)	(-1.31)	(2.470)	(-0.82)
R-squared	0.02	0.251	0.033	0.129	0.054	0.134	0.123
N	47,203	16,992	6,606	22,935	19,852	24,892	27,478
Average	0.050	0.136	0.895	0.234	7.630	0.828	0.895

Table 6: Discontinuities around Index Cutoffs

This table reports holdings of different types of shareholders just around the Russell 1000-Rusell 2000 index cutoffs for the 2001-2014 period. Panel A ranks firms based on the Russell's index weights. For example, Columns 1-2 report the holdings of the 250 firms ranked at the bottom of the Russell 1000 index (Column 1) compared to the 250 firms ranked at the top of the Russell 2000 index (Column 2). In Panel B companies are ranked using CRSP market capitalization. *Index funds total* is the total percentage of shares held by index funds, *Nonfinancial blocks total* is the total percentage of shares held by nonfinancial blockholders, *Financial blocks total* is the total percentage of shares held by financial blockholders, *All financial total* is the total percentage of shares held by all financial institutional shareholders regardless of whether they are blockholders, and *Mutual funds total* is the total percentage of shares held both by index and by non-index funds.

Panel A: Ranking based on Russell's index weights

Bandwidth	[-250, 0]	[0, 250]	Diff (1)-(3)	[-100, 0]	[0, 100]	Diff (4)-(5)
	(1)	(2)	(3)	(4)	(5)	(6)
Index funds total	5.74	7.41	-1.67	4.66	7.81	-3.15
Nonfinancial blocks total	8.90	3.96	4.94	18.24	2.81	15.43
Financial blocks total	20.60	23.33	-2.73	22.00	22.55	-0.55
All financial total	72.45	77.58	-5.13	66.22	78.93	-12.71
Mutual funds total	25.66	29.80	-4.14	22.20	31.43	-9.23

Panel B: Ranking based on CRSP market capitalization

Bandwidth	[-250, 0]	[0, 250]	Diff (1)-(3)	[-100, 0]	[0, 100]	Diff (4)-(5)
	(1)	(2)	(3)	(4)	(5)	(6)
Index funds total	6.11	6.77	-0.66	6.24	6.47	-0.23
Nonfinancial blocks total	6.98	8.96	-1.98	7.28	8.70	-1.42
Financial blocks total	20.65	20.71	-0.06	24.00	20.05	3.95
All financial total	73.98	73.90	0.08	73.60	74.52	-0.92
Mutual funds total	26.48	28.18	-1.7	26.26	27.83	-1.57

Table 7: Replication of Prior Studies

This table presents the results of two-stage least squares estimates of the effect of index ownership on governance outcome variables. Our analysis follows Appel, Gormley, and Keim (2016). *Index fund total* is the total percentage of shares held by index funds. *NonFinBlocks* is the total fraction of nonfinancial blocks (a nonfinancial block is equal to at least 5% of the company's outstanding shares, and does not file a 13F). *R2000* is a dummy variable equals to one if the observation is in the *R2000* index; zero if it is in the Russell 1000. Column 1 reports the first stage regression while columns 2-7 report the second stage. In models 1, 2, 4, and 6, we follow the original specification using *R2000* as an instrument for *Index funds total*. In columns 3, 5, and 7, we augment the second stage regression with *Blocks* and *Blocks*R2000*. All specifications include a third-order polynomial expansion of log market capitalization along with the estimate float-adjusted market value of equity and year fixed effects. *Activist event occurred* is equal to one if an activist event occurred; zero otherwise following Brav, Jiang, Partnoy, and Thomas (2008). *Dual class* which is equal to one if the company has dual class shares; zero otherwise. *Outside directors* is the fraction of outside directors All specifications are for the 2009-2013 period for which we were able to obtain the float adjusted market cap as provided by Russell.

	Index fund total	*Activist event occurred*		*Dual class*		*Outside directors*	
	First stage	Second stage		Second stage		Second stage	
	(original)	(original)	(alternative)	(original)	(alternative)	(original)	(alternative)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
R2000	0.0207***						
	(0.003)						
Index fund total		-1.044***	-1.841*	-5.873***	-2.321	1.209***	1.140
		(-2.241)	(-1.82)	(-3.375)	(-1.220)	(2.772)	(1.48)
NonFinBlocks			0.007		-0.258**		-0.086**
			(0.210)		(2.040)		(-2.215)
*NonFinBlocks*R2000*			0.059		0.236*		0.005
			(0.970)		(-1.852)		(0.100)
Bandwidth		250	250	250	250	250	250
AGK (2016) reference	Tab. 2 col. 2	Tab. 9 col. 3		Tab. 7 col. 3		Tab. 4 col. 3	
R-squared	0.318	0.014	0.016	0.058	0.067	0.204	0.211
N	2,267	2267	2277	2,172	2,181	2,196	2,205

Table 8: Market Response to Block Entries Depending on the Type of Block and Firm

This table reports DGTW-adjusted abnormal returns during the [0, 5] window around 13D filings. The results are broken down by the block type that entered (as indicated in the top row), unconditionally, and by one additional firm characteristic: volatility, firm size, or (as indicated in the first column). Definitions for variables are reported in the Glossary of Variables. *Nonfinancial* blocks are held by blockholders that do not file a 13F form, *Financial* blocks are held by blockholders that do file a 13F form, *Individual* blocks are held by individuals, *Hedge fund* blocks are held by hedge funds, *Other private* blocks are held by a non-13F filer block that is not an individual or a hedge fund block (e.g., a private company or a public company), and *Institutional* blocks are held by a financial institution who does not fall into the remaining categories. The final two columns classify *Financial* blockholders into short-term and long-term investors based on the mean investment horizon for a blockholder across all blocks requiring form 13D during the sample period. Short-term (long-term) investors are defined as those with mean investment horizon below (above) the median value in the sample. Standard errors are reported in brackets, * indicates significance at 10% level, ** indicates significance at 5% level, and *** indicates significance at 1% level.

Panel A: Unconditional Results

	Nonfinancial	Financial	Individual	Other Private	Hedge Funds	Institutional	Short Term	Long Term
Mean Abnormal Return	0.012***	0.013**	0.015***	0.007***	0.015***	0.014***	0.013***	0.013***
	(0.002)	(0.002)	(0.024)	(0.002)	(0.002)	(0.003)	(0.002)	(0.003)
N	7,880	3,877	3,082	3,895	3,944	836	2,103	1,546

Panel B: Results by Volatility

Characteristic	Nonfinancial	Financial	Individual	Other Private	Hedge Funds	Institutional	Short Term	Long Term
high volatility	0.017***	0.015***	0.023***	0.009***	0.022***	0.011	0.016***	0.013**
	(0.003)	(0.004)	(0.004)	(0.003)	(0.005)	(0.009)	(0.005)	(0.006)
low volatility	0.003*	0.011***	0.004	0.002	0.010***	0.012***	0.010***	0.011***
	(0.002)	(0.002)	(0.003)	(0.003)	(0.002)	(0.004)	(0.002)	(0.003)
Difference high - low	0.014***	0.004	0.019***	0.007***	0.012***	-0.001	0.006	0.003**
	(0.004)	(0.004)	(0.005)	(0.005)	(0.006)	(0.009)	(0.005)	(0.006)
N	5,155	2,287	2,055	2,568	2,322	497	1,231	915

Panel C: Results by Size

Characteristic	Nonfinancial	Financial	Individual	Other Private	Hedge Funds	Institutional	Short Term	Long Term
large	-0.001	0.013***	0.004	-0.002	0.010***	0.013***	0.013***	0.012***
	(0.002)	(0.002)	(0.004)	(0.003)	(0.002)	(0.004)	(0.002)	(0.003)
small	0.017***	0.018***	0.022***	0.011***	0.022***	0.016	0.016***	0.020***
	(0.002)	(0.004)	(0.004)	(0.003)	(0.003)	(0.010)	(0.005)	(0.006)
Difference large - small	-0.018***	-0.005	-0.017	-0.013	-0.012	-0.003	-0.003	-0.008
	(0.003)	(0.004)	(0.006)***	(0.005)	(0.004)***	(0.011)	(0.005)	(0.007)
N	5,295	2,249	2,187	2,520	2,317	520	1,183	954

Table 9: Structural Model Estimates of the components of announcement returns.

This table summarizes the distributions of the estimates of the expected returns from filing a Schedule 13D, or 13G, and the three components of announcement returns following the structural estimation procedure detailed in Albuquerque, Fos, and Schroth (2012). The total return for each announcement, conditional on a 13D filing, include the effect of expected activism, and a selection effect. For observations where a 13G is filed, returns are decomposed into a stock picking effect and a selection effect. These effects are estimated separately for each of the observed 4370 Non-13F (Panel A) filers and the 4630 firms that file 13F (Panel B), taking as given the target firm and activist characteristics detailed in Albuquerque, Fos, and Schroth (2012). The statistics presented are based on the estimates of the structural model following Albuquerque, Fos, and Schroth (2012). The parameters of the structural model are estimated by maximum likelihood, based on the joint distribution of filing choices (13D vs. 13G) and conditional abnormal announcement returns. Sample splits for small and large firms are based on the median market capitalization of the target firm. Sample splits for Volatility are based on the median annual standard deviation of daily returns.

Panel A. Nonfinancial Blockholders

	All Firms (N=4370)		Small (N=1903)		Large (N=1467)		High Volatility (N=2240)		Low Volatility (N=1220)	
Non 13F	Mean	Std.Dev.	Mean	Std.Dev.	Mean	Std.Dev.	Mean	Std.Dev.	Mean	Std.Dev.
Total effect	3.30%	4.75%	5.69%	4.31%	-0.11%	4.89%	7.10%	4.87%	4.05%	3.89%
Activism	5.87%	2.04%	5.71%	12.02%	-0.75%	3.63%	4.99%	11.46%	2.91%	2.76%
Stock picking	-0.80%	3.04%	2.65%	3.83%	0.64%	3.34%	3.11%	4.57%	1.14%	2.63%
Selection	1.87%	3.55%	1.22%	0.43%	6.18%	2.56%	1.42%	0.44%	0.66%	0.29%

Panel B. Financial Blockholders

	All Firms (N=4630)		Small (N=1583)		Large (N=1026)		High Volatility (N=1374)		Low Volatility (N=1231)	
	Mean	Std.Dev.	Mean	Std.Dev.	Mean	Std.Dev.	Mean	Std.Dev.	Mean	Std.Dev.
Total effect	4.71%	4.18%	4.12%	5.34%	1.26%	4.45%	3.90%	5.56%	4.04%	2.74%
Activism	5.03%	6.24%	3.05%	2.20%	1.48%	7.23%	3.99%	10.22%	-0.36%	3.03%
Stock picking	-0.32%	4.94%	-1.59%	9.69%	-0.22%	4.28%	-1.09%	9.15%	-0.97%	4.31%
Selection	0.87%	0.51%	1.79%	0.93%	0.96%	0.61%	1.72%	0.83%	0.70%	0.48%

Table 10: Block Type and Governance over the Firm's Life Cycle

Panel A tabulates frequencies of stated objectives, which are identified based on the most common one-, two-, three-, and four-word phrases used in Item 4 of Form 13D in which blockholders state the purpose of their transaction (standard "stopwords" and boilerplate phrases are discarded). Panel B reports the language measures for the stated objectives, and includes a *Specificity* measure which is defined as the number of specific places, people, organizations, dates, times, and quantities used in Item 4, based on the Stanford Named Entity Recognizer (NER) as a percentage of all words. Additionally, Panel B reports the wordcount (per thousand words) using a set of word lists from the Loughran and McDonald (2011) dictionary to capture the language tone. The variables, Weak Modal, Strong Modal, Negative, Positive and Uncertainty measures, are defined as the number of words in Item 4 from the corresponding word list divided by the total number of words in Item 4. Panel C examines the prevalence of different corporate governance practices (which are defined in the Glossary of Variables). All three panels report figures broken down by firm age tercile using the following categories: young companies (0-4 years), mid-age companies (larger than 4 years to 12 years), and mature firms (larger than 12 years). Firm age is defined as the number of years the firm has been listed on Compustat with a non-missing end-of-fiscal-year stock price as of the observation year. Panels A and B further break down the figures depending on whether the filing is filed by a nonfinancial block (i.e., a blockholder that does not file a 13F form), or a financial block (i.e., a blockholder that files a 13F form). The SEC Filings included in Panels A and B cover the period 1998 – 2018. Panel C includes the 2001-2014 period. All variables are defined in the Glossary of Variables. T-statistics are reported in brackets, ∗ <.01. ∗∗ <.05; ∗∗∗ <.01.

Panel A: Stated Objectives by Investor Type

	Firm age tercile											
	Young				Mid-age				Mature			
	Com.	Fin.	Diff.	T-stat	Com.	Fin.	Diff.	T-stat	Com.	Fin.	Diff.	T-stat
Maximize Shareholder Value	0.25	1.37	-1.12	-2.29**	0.90	2.55	-1.65	-2.88***	1.23	3.34	-2.12	-3.25***
Undervalued	0.78	7.88	-7.10	-6.29***	1.85	15.08	-13.23	-10.58***	5.71	23.52	-17.81	-11.76***
Economic/Market/Industry	15.86	15.75	0.11	0.06	7.66	13.81	-6.15	-4.73***	7.58	11.93	-4.35	-3.50***
Capital Structure	1.97	11.82	-9.85	-7.21***	2.07	15.20	-13.13	-10.44***	3.15	15.72	-12.57	-9.82***
Dividend	28.89	28.25	0.64	0.31	26.76	21.58	5.19	3.10***	24.93	19.18	5.76	3.49***
Repurchase	1.07	2.23	-1.16	-1.80*	2.45	2.90	-0.45	-0.68	2.30	2.12	0.18	0.30
Restructuring	1.27	7.02	-5.75	-5.32***	2.02	9.28	-7.26	-7.04***	2.46	9.48	-7.02	-6.74***
Elect/Nominate/Vacancy	28.52	19.01	9.52	5.11***	26.16	14.73	11.43	7.55***	25.20	13.94	11.26	7.36***
Elect/Nominate	9.34	7.36	1.98	1.61*	11.66	7.54	4.12	3.68***	11.27	9.03	2.24	1.86*
Vacancy	21.43	13.53	7.91	4.82***	17.60	8.70	8.90	7.16***	16.55	5.57	10.98	9.54***
Operations	14.96	33.22	-18.26	-8.79***	11.40	32.83	-21.43	-12.39***	16.55	39.58	-23.03	-12.48***

Panel B: Language Measures

	Firm age tercile											
	Young				Mid-age				Mature			
	Com.	Fin.	Diff.	T-stat	Com.	Fin.	Diff.	T-stat	Com.	Fin.	Diff.	T-stat
Specificity (%)	5.80	4.43	1.37	5.59***	7.01	4.49	2.52	11.50***	7.10	4.48	2.62	11.38***
Weak Modal	7.98	10.96	-2.97	-6.96***	6.93	11.32	-4.39	-11.34***	8.14	12.61	-4.46	-11.60***
Strong Modal	2.70	1.98	0.72	3.88***	3.52	2.11	1.41	8.15***	3.15	1.64	1.50	8.89***
Weak minus Strong Modal	5.22	8.97	-3.69	-7.62***	3.41	9.21	-5.80	-12.92***	4.99	10.96	-5.97	-13.14***
Uncertainty	9.23	12.77	-3.54	-7.49***	8.19	13.29	-5.10	-11.97***	9.68	14.65	-4.97	-12.12***
Negative	8.67	7.27	1.40	4.54***	9.11	7.68	1.43	4.97***	9.50	7.44	2.06	6.55***
Positive	3.94	4.74	-0.80	-2.60***	4.21	5.46	-1.25	-3.68***	5.50	6.22	-0.72	-2.36**
Negative minus Positive	4.73	2.52	2.20	4.86***	4.90	2.21	2.68	5.78***	4.00	1.21	2.79	6.03***

Figure 1: Company Age and Shareholder
The figure reports for the 2001-2014 period the average percentage of shares held by nonfinancial and financial blocks, as a function of firm age (i.e., the number of years the firm has been listed on Compustat with a non-missing end-of-fiscal-year stock price as of the observation year).

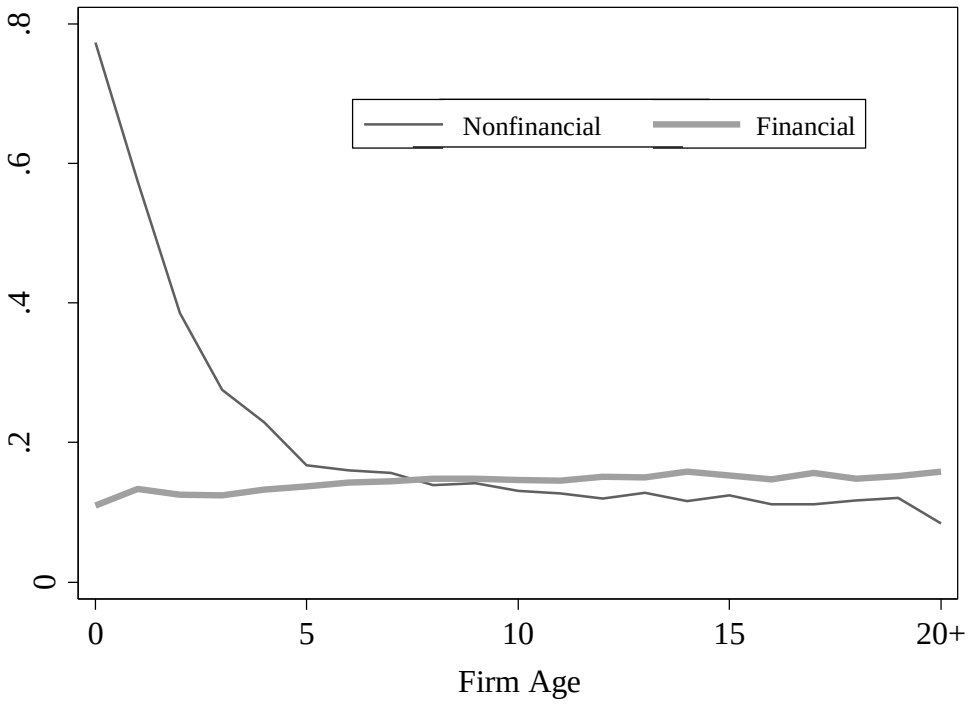
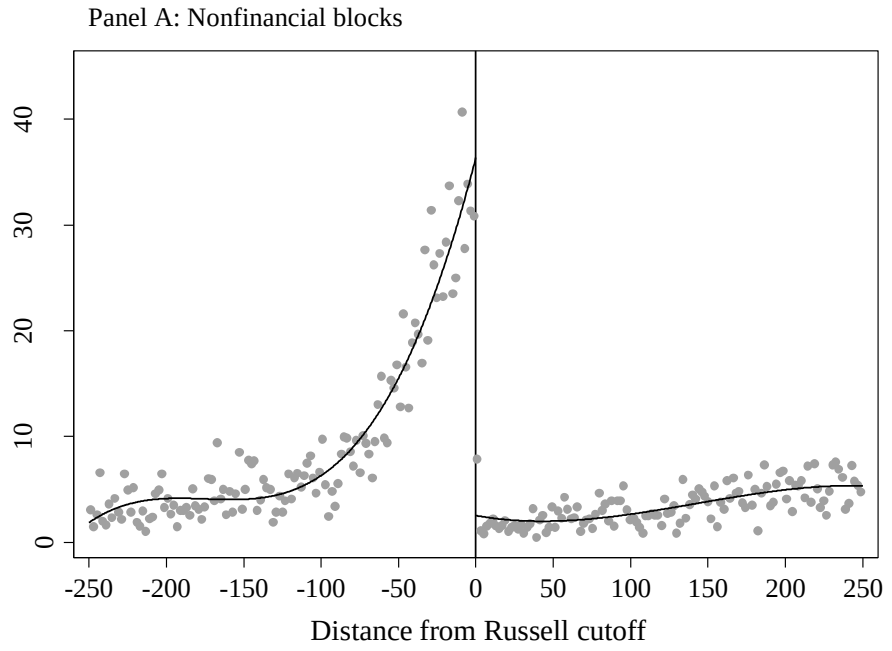


Figure 2: Blockholdings around Russell Discontinuity Ranked by Russell's Weights
Panel A documents for the 2001-2014 period, the total fraction of shares held by nonfinancial blockholders (i.e., blockholders who do not file form 13F), ranked by the Russell weights. The company ranked 0 represents the first company within the Russell 2000, while the company ranked -1 represents the last company within the Russell 1000. Panel B estimates this figure for index funds. On the left side of the cutoff line, are the 250 firms ranked at the bottom of the Russell 1000; on the right side are the top 250 firms of Russell 2000 index. The company ranked as -250 is 250 companies away from the Russell 1000-2000 cutoff. The line in each panel estimates a 3rd degree polynomial function.



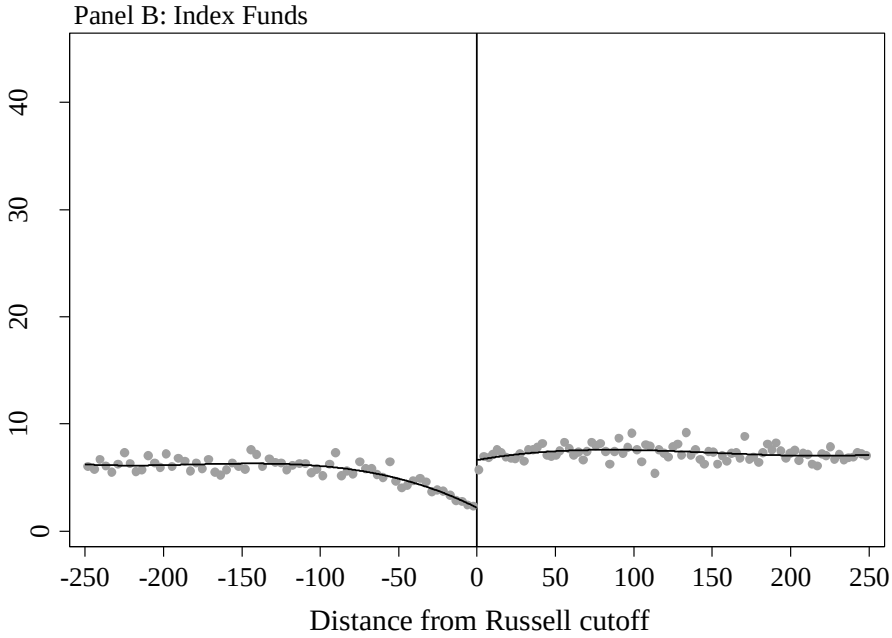
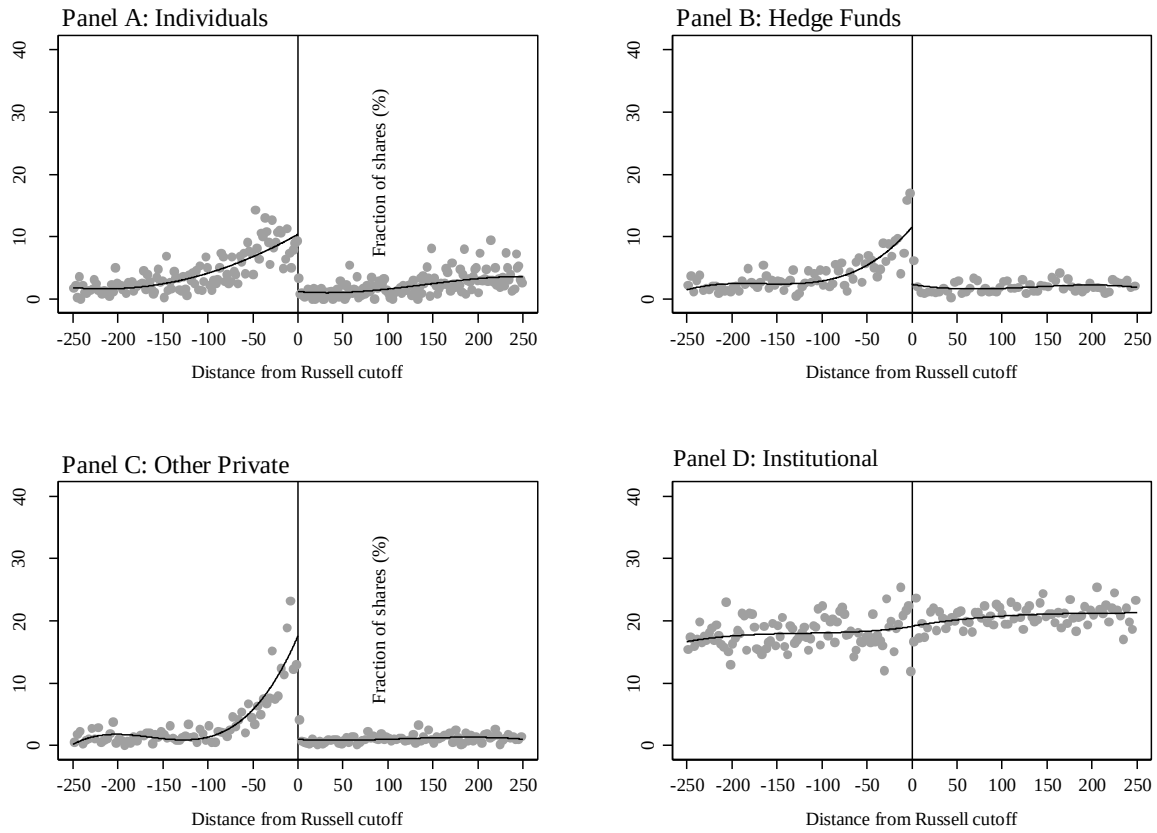


Figure 3: Block Ownership around the Russell 2000 Discontinuity

The figure reports for the 2001-2014 period, the total percentage of shares held by each type of blockholder. Companies are ranked by the Russell weights. The company ranked 0 represents the first company within the Russell 2000, while the company ranked -1 represent the last company within the Russell 1000. On the left side of the cutoff line, are the 250 firms ranked at the bottom of the Russell 1000; on the right side are the top 250 firms of Russell 2000 index. The company ranked as -250 is 250 companies away from the Russell 1000-2000 cutoff. The line in each panel estimates a 3rd degree polynomial. *Individual* are individual blockholders; *Hedge fund* blocks includes hedge funds and private equity investors; *Other private* include blockholders who do not file a 13F filing, and do not fall under the *Individual* or *Other private* category; *Institutional* blocks are defined as financial institutions who do not fall into the remaining categories.



Appendix A: Example of item 4 from 13-D filing

Panel A: High specificity score

This panel reports the item 4 of the 13-D filing filed by Arturo "Jake" Sanchez, who filed a 13D filing when revealing the purchase of a block in Medina International Holding. The specificity score of this item is equal to 23.8%. The filing was filed on April 29, 2016. The filing is available at this link: https://www.sec.gov/Archives/edgar/data/1093248/000106594916000419/medinagroup_sc13dvfinal.htm.

Item 4:

Arturo "Jake" Sanchez and Lawrence R. Litowiz are deemed beneficial owners as Officers of the Issuer. John Stol and Ramuindo Dias are deemed beneficial owners as Directors of the Issuer. Elk Health Holdings, LLC and OB Holdings, LLC are more than 5% beneficial owners. Dr. Leonard Makowka, Dr. Christopher Leggett, CMD and Derrick Orosa were deemed beneficial owners as management with MedHold.

The Reporting Persons have plans which relate to, or could result in the matters referred to in paragraphs (a) through (j), inclusive, of the instructions to Item 4 of Schedule 13D as follows:

(a) - (c)

Acquisition Agreement - April 29, 2016 - Medina International Holdings, Inc. and Medical Innovation Holdings

On April 29, 2016, Medina International Holdings, Inc. (the "Company") entered into an Acquisition and Purchase Agreement with Medical Innovation Holdings, a Joint Venture ("MedHold") with an effective date of April 29, 2016, whereby all of the assets would be acquired by the Company from MedHold. In conjunction therewith, a total of approximately $3,112,599 in debt owed by the company and its subsidiaries, will be released from the company at closing.

Acquisition and Purchase Agreement - Medina International Holdings, Inc. and Daniel Medina and Rao Mankal

The Company has entered into an Agreement and completed a disposition of assets to Madhava Rao Mankal and Daniel Medina, who agreed to purchase those certain assets known as the "boat assets" and the stock of Harbor Guard Boats, Inc., and have agreed to assume certain of the debts listed in the Agreement attached as an exhibit hereto. Madhava Rao Mankal and Daniel Medina released the notes to themselves, and provided releases of the other notes or obligations as to any liability of Medina International Holdings, Inc. The closing shall occurred simultaneously and as a condition of the closing of the Acquisition Agreement with medical Innovation Holdings, Joint Venture. The company is relieved, through this divestiture, of the large debt of over $1,140,311 carried on its books, and any assets associated therewith, which have all been written off at this time. The agreement further provided that certain common shares of the company be surrendered, owned by Albert Mardikian, MGS Gran Sports, Daniel Medina, and Madhava Rao Mankal, totaling 35 million shares, which shall be cancelled and retired to treasury.

Settlement Agreement and Release - Medina International Holdings, Inc. and Chenji Srinivasan Seshadri

In conjunction with the Acquisition and Purchase Agreement discussed in the preceding section, Medina International Holdings, Inc. (the "Company") entered into a Settlement Agreement and Release with Chenji Srinivasan Seshadri ("Debtholder") and Harbor Guard Boats, Inc., a California Corporation ("Harbor Guard").

The Agreement compromises, settles and otherwise resolves all claims for common shares, subscriptions, or Notes, or debts, relating to the Company and Debtholder as to any and all claims or causes of action whatsoever against the Company by Debtholder for any matter, action, or representation as the Company, any debt or Note, the subscription, by the subscriber, and other potential claims and causes of action arising from any relationship, agreement, subscription, debt, or Note, or actions of the Company or its management which may be claimed by Debtholder up to the date hereof.

Settlement Agreement and Release - Medina International Holdings, Inc., Daniel Medina, and Harbor Guard Boats, Inc.

In conjunction with the Acquisition and Purchase Agreement discussed in the preceding section, Medina International Holdings, Inc. (the "Company") entered into a Settlement Agreement and Release with Daniel Medina ("Debtholder") and Harbor Guard Boats, Inc., a California Corporation ("Harbor Guard").
Harbor Guard assumed and agreed to pay the debt that Debtholder hold of Medina International and that is released from the Company. Such debt is $567,660.30 including all interest and accrued payroll.

Settlement Agreement and Release - Medina International Holdings, Inc., Madhava Rao Mankal, and Harbor Guard Boats, Inc.
In conjunction with the Acquisition and Purchase Agreement discussed in the preceding section, Medina International Holdings, Inc. (the "Company") entered into a Settlement Agreement and Release with Madhava Rao Mankal ("Debtholder") and Harbor Guard Boats, Inc., a California Corporation ("Harbor Guard").
Harbor Guard assumed and agreed to pay the debt that Debtholder hold of Medina International and that is released from the Company. Such debt is $572,651.30 including all interest and accrued payroll.

Settlement Agreement and Release - Medina International Holdings, Inc., Srikrishna Mankal, and Harbor Guard Boats, Inc.
In conjunction with the Acquisition and Purchase Agreement discussed in the preceding section, Medina International Holdings, Inc. (the "Company") entered into a Settlement Agreement and Release with Srikrishna Mankal ("Debtholder") and Harbor Guard Boats, Inc., a California Corporation ("Harbor Guard").
Harbor Guard assumed and agreed to pay the debt that Debtholder hold of Medina International and that is released from the Company. Such debt is $57,000 including all accrued interest.

Completion of Acquisition
On April 29, 2016, Medina International Holdings, Inc. (the "Company") entered into an Acquisition Agreement ("Acquisition") with Medical Innovation Holdings, a Joint Venture ("MedHold") with an effective date of April 29, 2016, whereby all of the assets of Medhold would be acquired by the Company from MedHold. Pursuant to the Asset Acquisition Agreement, the closing of the Acquisition was effective April 29, 2016.
Per the Acquisition Agreement, the following items occurred:

1. The Company approved the issuance of 351,000,000 shares of the Company's restricted common stock to MedHold's designees;
2. 30 shares of Series "A" Convertible Preferred Stock, representing all the Preferred issued and outstanding of Medina International Holdings, Inc. from Madhava Rao Mankal and Daniel Medina shall be conveyed for $100 to MedHold;
3. A total of 35,000,000 common shares owned by Madhava Rao Mankal, Daniel Medina and Albert Mardikian, and MGS Grand Sports, Inc. shall be conveyed under separate Share Purchase Agreements to retire to treasury for $100 each;
4. The outstanding notes for legal fees for a total of $256,000, approximately, plus accrued interest thereon, were assumed and agreed to be paid in accordance with the terms thereof, without defenses or disagreements thereto at the time of closing. The outstanding balances due to the auditor (approximately $18,000, including current quarter review fees) and transfer agent (approximately $1,500) shall be paid as the earnest money; and
5. Assignments of the Assets were issued in the form of a Bill of Sale duly executed.

Disposition of assets: The Company has completed a disposition of assets to Madhava Rao Mankal and Daniel Medina, who agreed to purchase those certain assets known as the "boat assets" and the stock of Harbor Guard Boats, Inc., and have agreed to assume certain of the debts listed in the Agreement attached as an exhibit hereto. Madhava Rao Mankal and Daniel Medina released the notes to themselves, and provided releases of the other notes or obligations as to any liability of Medina International Holdings, Inc. The closing shall occurred simultaneously and as a condition of the closing of the Acquisition Agreement with Medical Innovation Holdings, Joint Venture. The Company is relieved, through this divestiture, of the large debt of over $1,140,311 carried on its books, and any assets associated therewith, which have all been written off at this time. The agreement further provided that certain common shares of the Company be surrendered, owned by Albert Mardikian, MGS Gran Sports, Daniel Medina, and Madhava Rao Mankal, totaling 35 million shares, which shall be cancelled and retired to treasury.

(d) In connection with the closing of the Acquisition and Purchase Agreement on April 29, 2016, and effective ten days after mailing of a Notice pursuant to Section 14(f) of the Securities Exchange Act of 1934, John Erich Lewis and Michael J. Gallo resigned as Officers and Directors of the Company. Daniel Medina and Madhava Rao Mankal resigned as Officers and Directors upon filing of the Form 10K and Form 10Q filings on May 13, 2016. John Stol and Raimundo Dias are appointed as Directors concurrent with the transactions herein described, and Arturo Sanchez and Lawrence Litowitz are appointed effective ten days after the mailing of the Section 14(f) Notice to Shareholders.

(e) None.

(f) None.

(g) New Management and the Company intends to change the Company's name and reverse split of the Company's stock.

(h) None.

(i) None.

(j) None.

Panel B: Low specificity score
This panel reports the item 4 o-9f the 13-D filing filed by KLS Diversified Asset Management LP, who filed a 13D filing when revealing the purchase of a block in Penn Virginia Corporation. The specificity score of this item is equal to 0.88%. The filing was filed on January 18, 2018. The filing is available at this link: https://www.sec.gov/Archives/edgar/data/77159/000119312518023752/d503125dsc13d.htm

Item 4:

The Reporting Person acquired beneficial ownership of the Common Stock for investment purposes. The Reporting Person intends to review Diversified's investment in the Issuer on a continuing basis. Representatives of the Reporting Person may have discussions from time to time with the Issuer, other stockholders and third parties relating to the Issuer, strategic alternatives that may be available to the Issuer and the Issuer's business, operations, assets, capitalization, financial condition, governance, management and future plans, including in respect of one or more of the actions described in subsections (a) through (j) of Item 4 of Schedule 13D. There can be no assurance as to the outcome of any of the discussions referred to in this Schedule 13D.

Depending on various factors, including the Issuer's financial position and strategic direction, the outcome of the discussions referenced above, actions taken by the board of directors of the Issuer (the "**Board**"), price levels of the securities of the Issuer, other investment opportunities, the availability and cost of debt financing, the availability of potential business combination and other strategic transactions, conditions in the capital markets and general economic and industry conditions, the Reporting Person may in the future take such actions with respect to Diversified's investment in the Issuer as it deems appropriate, including acquiring or disposing of securities of the Issuer, entering into financial instruments or other agreements which increase or decrease Diversified's economic exposure with respect to its investment in the Issuer, engaging in any hedging or similar transactions with respect to such holding and/or otherwise changing its intention with respect to any and all matters referred to in Item 4 of Schedule 13D.

Appendix B: Textual Analysis of Item 4

To classify item 4 of 13D into specific topics, we carry out the following steps:

1. Remove punctuation
2. Convert all characters to lowercase
3. Remove stopwords using the Python Natural Language Toolkit (NLTK) English list of stopwords
4. Extract uni-, bi-, and trigrams from resulting text
5. For each topic count the number of matching uni-, bi-, or trigrams from.

We specify below the list of uni-, bi-, and trigrams that must be included in item 4 of 13D to be classified under each of the categories included in the paper :
Maximize Shareholder Value: ('maximize', 'shareholder', 'value'), ('maximizing', 'shareholder', 'value'), ('maximize', 'value', 'shareholders'), ('maximize', 'value', 'shareholder'), ('maximizing', 'value', 'shareholders'), ('maximizing', 'value', 'shareholder'), ('increase', 'shareholder', 'value'), ('increase', 'value', 'shareholders'), ('increasing', 'shareholder', 'value'), ('increasing', 'value', 'shareholders')
Undervalued: 'undervalued'
Economic/Market/Industry: ('economic','conditions'), ('general','economic'), ('economic','industry'), ('industry','market'), ('industry','conditions')
Capital Structure: ('capital', ' structure')
Dividend: 'dividend', 'dividends'
Repurchase: 'repurchase', 'repurchases', 'repurchasing'
Restructuring: 'restructuring', 'restructure'
Elect/Nominate: 'elect', 'election', 'nominate', 'nomination'
Vacancy: ' vacancy', 'vacancies'
Operations: 'operations'

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The views expressed in this working paper are those of the authors, not those of the ECGI or its members.

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