

The Benefits of Access: Evidence from Private Meetings with Portfolio Firms

Finance Working Paper N° 751/2021

April 2021

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ECGI Working Paper Series in Finance

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Abstract

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Keywords: active investors, trading, institutional investors, corporate governance, stewardship, active ownership, shareholder voting, analysts, fund managers

JEL Classifications: G11, G14, G23, G34

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The Benefits of Access: Evidence From Private Meetings with Portfolio Firms

Abstract

We analyze the monitoring efforts of a large active asset manager that involve high-level private meetings with portfolio firms that are unobservable to outsiders. Our analysis reveals the inner workings of the asset management organization based on detailed records of contacts with executives and board members of portfolio firms, internal analyst recommendations, voting decisions, and daily fund-level stock holdings. Private meetings generate pronounced trading patterns, with fund managers trading on and around meeting days and votes. Our results show that engagement with target firms generates insights and information advantages, increases trading and is associated with significant abnormal returns.

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1. Introduction

Asset managers have widely adopted stewardship codes and principles of responsible investment, starting in the UK in 2009 and more recently in the US. Under the UK Stewardship Code, asset owners commit to “monitor and hold to account managers” and “engage with issuers” to create value. Sceptics have argued that these codes and principles are largely irrelevant since asset managers have little incentive to monitor and engage with their portfolio companies (e.g. Bebchuk, Cohen, and Hirst, 2017). Yet, we know little about institutional investor engagement in practice since company meetings are private. Nor do we know whether these meetings influence the trading behavior of active managers.

We address these issues using proprietary data from one of the world’s 30 largest active asset managers—Aberdeen Standard Investments (henceforth “SLI”).¹ This paper uses data on private contacts between the asset manager’s governance specialists and fund managers with portfolio companies, and links these meetings with trading decisions. Our dataset contains detailed records of the internal day-to-day activities inside the asset management organization for a period of nine years, and includes detailed notes of all contacts and meetings with portfolio firms, votes cast at shareholder meetings, as well as roughly 11 million observations of fund-level stock holdings at daily frequency.

The primary finding of this paper is that for this active investor, monitoring and engagement generates insights and information advantages that influence internal analyst recommendations and are used for trading decisions. These trades generate abnormal returns. To better understand our approach, consider the following example of Carillion plc, a multinational construction firm, with most of its turnover of \$ 7.0 billion in 2015 generated in the UK. The firm was widely held by dozens of international institutional investors; SLI held the largest stake of

¹ Aberdeen Standard Investments is the asset management arm of Standard Life Aberdeen Plc, that was created in March 2017 by the merger of Standard Life Plc and Aberdeen Asset Management Plc. As of June 2019, it manages \$670 bn, making it the largest active manager in the U.K. Our data relate to the operations of Standard Life Investments (SLI)—the asset management arm of Standard Life Plc that was set up in 1998—and cover the period 2007-2015.

around 10 percent. On Dec 1, 2015, the governance specialist met with the Chairman of the board.

An extract from the meeting notes leaves little doubt about the specialist's concerns:

“The shares have modestly lagged the wider market since the inconclusive approach to Balfour Beatty and forecasts have also drifted. But if the market seems apathetic about Carillion, [the Chairman] was on chipper form. Looking unfeasibly tanned for this time of year, he [...] had just returned from Lesotho by way of a break at a spa in Thailand. He had been out in southern Africa as Chairman of [...] children's charity. [The Chairman] had had a busy time and was justifiably proud of the polo match that the charity had staged, and which had raised over £1m. Meanwhile, he remains “Chairman designate” of [...]. He is also Chairman of [...] and sits on the board of [...]. He is a busy man. Perhaps as a consequence, [his] style would appear to be “light touch”. He averred that his predecessor [...] had been “old school” but while he [...] was “different ... they had similar approaches”. It all sounded rather confusing. His main contribution was to have refreshed the board and to have focused on the mentoring of the CEO, with whom he sounds to have an avuncular relationship. About the outlook for Carillion he seemed rather vague – strategically he [...] ‘had an intuition that there were opportunities in developed and developing economies’. The force of this insight was somewhat diminished by the admission that ‘they hadn’t really made any progress on that front’ (notwithstanding that the CEO received almost a full bonus for that measure of performance in 2014).”

The meeting strengthened concerns from previous meetings with SLI's internal analyst and fund managers around Carillion's strategy and financial management. As a result, two weeks later the internal analyst covering the firm downgraded it, from “Hold” to “Sell”.

On the day of the downgrade, 38 funds held the stock. One of those funds, a global equity fund, started selling down its position, selling 6.1 percent of its holdings on the day. The fund continued selling each day, for a cumulated reduction of 22.9 percent during the seven-day window, [-1+5] days, around the downgrade. The majority of funds, but not all, traded down the stock as well during this period, by an average of 26 percent. Subsequently the asset manager said it had lost faith in Carillion's management and the “willingness of the board to alter the strategic direction of the company to address our concerns”.² The company eventually went into insolvency.

The example shows how insights from private meetings can inform trading decisions. Using our full sample, we demonstrate that meetings with portfolio firms are associated with strong trading patterns. Fund managers heavily trade portfolio firms precisely *on meeting days*, and

² See www.parliament.uk/globalassets/documents/commons-committees/work-and-pensions/carillion/letter-from-standard-life-to-the-chairs-regarding-carillion-2-february-2018.pdf/ (accessed 3 December 2020)

trading remains elevated for several days; funds that trade around meeting days tend to be those that trade around other events such as internal analyst upgrades or downgrades and shareholder votes. Not all meetings are the same. Meetings with fund managers generate both buy and sell trades, whereas meetings with governance specialists generate largely sell trades.

This asymmetry reflects different engagement patterns of fund managers and governance specialists. Fund managers meet with portfolio firms at more regular intervals, and they meet with most firms once their stakes exceed a given size. In comparison, governance specialists meet only a subset of portfolio firms, especially where concerns have been raised. The strongest indication of such concerns is when governance specialists flag a firm and place it on an internal “governance health warning” list. Meetings with firms on this list lead to large sell trades on the meeting days.

We focus in particular on meetings which appear to influence internal analyst recommendations. We conjecture that such interactions are sufficiently significant that they generate abnormal returns from trading. We consider all upgrades and downgrades of stocks (which we term as “buy signals” and “sell signals”) and analyze the performance of trades made by fund managers. Stocks that receive sell signals experience significant negative raw returns. If no trading had occurred—that is, under a hypothetical passive strategy—a position that receives a sell signal would experience a significantly negative value-weighted return of -3.5 percent during the $[-1,+5]$ day window. We obtain estimates of the abnormal return due to active trading, with the passive strategy as the benchmark. The abnormal return due to trading, on a value-weighted basis, is between 27 and 36 basis points, depending on the timing of the trades. The evidence suggests that these abnormal returns are not due to price impact.

Similarly, stocks with buy signals experience significant positive raw returns. Buy trades—by taking larger bets on rising stocks—generate value-weighted abnormal returns of 37 bps and 40 bps over the same short window, depending on the timing of trades. These abnormal returns are economically large and statistically significant. They are also larger for small stocks than for large stocks, and larger for sell signals than for buy signals.

These returns further increase in size when meetings with portfolio firms occur within the 25 trading days prior to analysts’ sell and buy signals, i.e. the setting of the governance specialist

meeting with Carillion's chairman followed by a downgrade to sell in the example above. That abnormal returns are larger in those cases where meetings are associated with subsequent recommendation changes, suggests that more information was incorporated into prices. One possible explanation is that when meetings precede recommendation changes, significant new information is generated in the meeting, and is disseminated via trading. In the case of Carillion, the meeting notes cited above suggest a lack of confidence in the Chairman which influenced the analyst's downgrade of the stock from "Hold" to "Sell" and ultimately sell trades by the majority of fund managers.

We also examine the correlation between governance specialist meetings and votes against management at shareholder meetings with analyst sell signals. Abstentions and votes against management of the portfolio company are a signal of intense dissatisfaction of the response of management to meetings and engagements with the governance specialists. For example, nine days ahead of the April 28, 2011 shareholder vote of British American Tobacco (BAT) plc, a multinational tobacco company, the governance specialist in charge noted in an internal memo:

"Over the last two years we have had a number of corporate governance issues with BAT including: [...] The appointment of [a former auditor as non-executive director] in 2010. [...] The Board provides an explanation - not very convincing [...]. In the light of the very high level of non-audit fees paid by BAT to [...], we do not accept the explanation. We have engaged with the Company - and the Chairman, in particular - over the last 18 months in respect of the above noted issues. It is disappointing that the Company has failed to bring down the level of non-audit fees overall, and those pertaining to [...], in particular. We believe the situation has the potential to compromise the auditor's objectivity and independence. The unwise decision to appoint [...] to the Board compounds our belief. [...] I should like your permission to vote against the re-election of the Chair of the Audit Committee [...]. In addition, and mindful of the other matters noted above, we intend to abstain on the re-election of [several board members and the auditor]. You will infer from the above that we are very concerned regarding corporate governance at BAT, especially as it pertains to the financial aspects. We intend to engage robustly with the Company over the coming year [...] to ensure our concerns are communicated clearly and to encourage improvements."

The asset manager subsequently voted its shares as described. We interpret votes against management as a good indicator of unsuccessful meetings with management, indicating an inability or unwillingness to cooperate. We would expect that such a lack of cooperation frequently leads to sell signals by analysts, and ultimately to selling by fund managers. The aggregate

holdings in BAT across all funds during the 18-month period referred to above declined from 1.4 percent to 1.0 percent. That the asset manager continued to hold a significant stake in BAT, despite the dissatisfaction, reflected fund mandate constraints and disparate views about perceived mispricing of BAT shares. We would expect disagreement expressed through voting to lead to more intense trading by fund managers, and more frequently as sells than as buys.

We use the over 60,000 individual votes in our sample, almost 2,000 of which are against management, for this analysis. Consistent with private meetings providing insights, we find that the intensity of engagement with portfolio firms increases substantially around shareholder meetings, particularly where there are abstentions or votes against. Compared with votes in favor, votes against management involve roughly three times more frequent contact with governance specialists prior to the vote. With votes against, interactions also involve a significantly more negative tone of voice, again suggesting that the information being generated by governance specialists is a negative signal.

Disagreement matters for trading; negative shareholder votes coincide with large sell trades. When we interact disagreement expressed through voting with (private) internal analyst assessments we find that disagreement consistently leads to even greater selling by fund managers. Importantly, this not only applies to stocks on which analysts issue sell signals—where disagreement increases sell trades by over 250 percent—but also to stocks with buy signals—where disagreement reduces buy trades by roughly 25 percent—indicating in the latter case that fund managers appear to incorporate negative information from meetings even in those cases where they are otherwise optimistic about the firm.

An important question is how these results fit in with the current regulatory framework in the UK concerning private meetings with portfolio firms. In the UK, like in the US, listing rules do not permit selective disclosure of price sensitive information.³ In private meetings companies

³ Fair disclosure rules are applied in the US through the SEC's Regulation Fair Disclosure (Reg-FD) since 2000, and in the UK through the FSA's UK Listing Rules that transpose the European Union's Council Directive 79/279/EEC of 5 March 1979, the "Admissions Directive". In the UK there is a general obligation to disclose price sensitive information; in the US the disclosure must be "fair", but full disclosure is not mandatory (Georgiou 2016).

are not allowed to discuss such information, unless it has been disclosed to the market already. For example, regulators will be particularly concerned about disclosure of event-driven ‘precise’ information such as a loss of a major contract, an upcoming court case, or a profit warning.

Notwithstanding the regulations, information from meetings could still have value. One, fund managers may be able to combine non-material information obtained in the meetings with other information they have collected. This well-known practice is the basis of mosaic theory and the CFA Institute, for example, provides detailed guidance to its members about its definition (CFA 2014, Standard II(S)) and practical application. Two, personal interaction may be valuable in judging individuals, including their character and ability, insights that generate an information advantage, a reason that is stressed in interviews with fund managers (Barker, Hendry, Roberts and Sanderson 2012), and which is illustrated in the example of Carillion above. Given prior evidence that the market values CEO personality and management style such insights could translate into trading decisions.⁴ Finally, private meetings may simply break the disclosure rules.

While we cannot comment on the industry overall, in the case of SLI there are strong formal internal rules that are intended to prevent precisely the latter from happening and an active compliance function. Overall, it might however well be argued that such profits from trading are perfectly compatible with a Grossman-Stiglitz efficient market, where informed traders are compensated for expending the resources they use to become informed.

An important contribution of our paper is that we can explicitly link the monitoring efforts of an active institutional investor vis-à-vis its portfolio firms—through high-level meetings that are private and thus unobservable to outsiders—with the trading decisions of portfolio managers. No prior study has been able to examine daily trading and monitoring activity for an institutional investor. A second contribution is to provide evidence on the internal organization of the asset manager and the substance of the specific interactions between internal analysts, fund managers, and governance specialists. The prior governance literature has almost exclusively focused on the latter, the mutual fund and analyst literature on the former; in practice they operate as a team.

⁴ See, for example, Bertrand and Schoar (2003); Kaplan, Klebanov and Sorensen (2012); Graham, Campbell and Puri (2013); Benmelech and Frydman (2015); Schoar and Zuo (2016).

2. Prior Literature

Our work relates to several strands of the literature, including papers that explore the interactions of institutional investors with portfolio companies, those that study analyst recommendations and their information content, and a broad range of studies covering the role that shareholder engagement and ESG plays for institutional investors (see also McCahery, Sautner and Starks, 2016).

The area of the investor-firm interaction literature is most closely related to our paper and examines the role of meetings and other interactions that fund managers and analysts have with portfolio companies. Bushee, Jung, and Miller (2011) show that public meetings at investor conferences are associated with increased trading volume. Green, Jame, Markov, and Subasi (2014) find that hosting such conferences improves the quality of analysts' research. Bushee, Gerakos, and Lee (2018) use corporate jet flight patterns to plausibly identify private meetings and find increases in analyst recommendation changes and trading volume around such meetings. Our analysis is based on confirmed private meetings. We also emphasize the role of governance specialists, who are becoming an integral part of the investment process.

Since our paper uses private engagement data, it is also related to the few papers that use proprietary data to explore different, but related issues in investor activism. Carleton, Nelson and Weisbach (1998) document the engagement process of TIAA-CREF, the pension fund; Becht, Franks, Mayer, and Rossi (2008) analyze engagements of the Hermes UK Focus Fund, an activist hedge fund; Dimson, Karakas and Li (2015) use proprietary engagement data from an institutional investor with a responsible investment commitment; while Hoepner, Oikonomou, Sautner, Starks and Zhou (2020) consider another investor's ESG engagements and their effect on portfolio downside risk. The latter papers benefit from data access that allows identifying the start of an engagement and distinguish between successful and unsuccessful campaigns; the data do not include voting or fund trades. These papers are important because they provide direct evidence on the interactions between institutional investors, company boards and executives.

Many papers document how asset managers or sell-side analysts generate information advantages in equity markets. Investors have been shown to generate outperformance from macro variables (Avramov and Chordia, 2006), geographic proximity and country knowledge (Coval and Moskowitz, 1999; Banegas, Gillen, Timmermann, and Wermers, 2013), past educational ties (Cohen, Frazzini, and Malloy, 2008, 2010), and stock picking skills (Chen, Jegadeesh, and Wermers, 2000). We add to this literature by showing that personal meetings with portfolio firms contribute to outperformance through trading.

Our paper is also closely related to a large literature examining the information content of analyst recommendations and fund manager trading outcomes.⁵ We contribute to this prior research by explicitly considering how buy-side analysts gather information directly from high-level engagements with portfolio firms.

Finally, our paper is related to work on the voting behavior of mutual funds (Iliev and Lowry, 2015) and theories of shareholder voting (Maug and Rydqvist, 2009; Levit and Malenko, 2011; Van Wesep, 2014; Malenko and Malenko, 2019; Bar-Isaac and Shapiro, 2020; Cvijanovic, Groen-Xu, and Zachariadis, 2020), especially those that relate voting directly to trading behavior (Levit, Malenko and Maug, 2019; Meirowitz and Pi, 2020). In related empirical work, Li, Maug, Schwartz, and Ziv (2018) show, like us, that investor trades are significantly related to shareholder votes. In this context the paper is also related to the literature where blocks of shares form endogenously and blockholders can exert influence through exit (e.g. Admati and Pfleiderer, 2009; Edmans, 2009; Edmans and Manso, 2011). In these latter theory papers, smaller blockholders have incentives to gather costly information about a firm's fundamentals, and as such impound information into prices; our empirical evidence supports that view.

⁵ See, for example, Elton, Gruber, and Grossman (1986); Womack (1996); Barber, Lehavy, McNichols and Trueman (2001, 2003); Jegadeesh, Kim, Krische, and Lee (2004). This literature is mostly based on sell-side analysts typically working for brokers; only a few papers have focused on buy-side analyst recommendations working for the asset managers themselves (e.g., Cheng, Liu, and Qian, 2006; Groysberg, Healy, Serafreim, Shanthikumar, and Gui, 2013; Rebello and Wei, 2014; Brown, Call, Clement, and Sharpe, 2016).

3. Opening the Active Asset Manager “Black Box”

We know relatively little about the internal organization of asset managers and their engagements with portfolio firms, despite asset management being the largest segment of the global financial services industry. Although asset managers publish annual stewardship reports, their disclosure is voluntary and usually consists of case studies and aggregate data at annual frequency. In this Section, we provide a detailed description of the internal organization of a major active asset manager and explain the connections between monitoring, engagement, voting and trading by the asset manager.

In 2015, the three largest independent asset managers that globally actively manage the majority of their assets under management were Fidelity, Capital Group, and Amundi, with combined AUM of \$4.4 trillion (see Appendix Table A1).⁶ Standard Life Aberdeen, our data provider, is the 23rd largest asset manager worldwide, and the largest active asset manager in the UK in 2015. The asset manager’s investment style mostly relies actively managed portfolios.⁷ The asset manager has invested in corporate governance and stewardship since the inception of the Cadbury Code in 1992 and has high visibility among investors and companies.⁸ Our results could be interpreted as an upper bound for the value of stewardship of a large, research focused active asset manager.

3.1. Funds, Stock Holdings, and Trading

⁶ We exclude sovereign wealth funds. Large asset managers such as BlackRock are not included among active managers because the majority of their assets are passively managed.

⁷ SLI was the investment arm of Standard Life Plc and was created in 2006 through the demutualization of Standard Life Assurance, one of the largest life insurance mutual companies in the world. The asset manager built on the reputation of the parent company for in depth research (Moss, 2000). Black and Coffee (1994) provide a detailed description of the significant role played by insurance companies and the asset managers they own in the governance of U.K. companies, unlike their U.S. counterparts.

⁸ For example, in 2013 the Head of the asset manager’s governance specialists was elected Chair of the UK’s Corporate Governance Forum, an informal network comprising leading UK institutional investors “committed to best practice principles of governance and stewardship”. In a joint effort with the GC100, a grouping of the UK’s largest 100 listed companies, the Forum published influential remuneration guidance; see Jones (2013).

In Table 1, we provide summary annual statistics for the asset manager's UK equity holdings. Throughout the paper, all variables are winsorized at the 1st and 99th percentiles. Panel A reports the number of funds in our sample, which increases from 95 in 2007 to 133 funds by the end of 2015. Of those funds, between 43 and 64 are managed by the UK equities desk; other funds holding (some) UK equities include funds with a focus on Europe or Asia, multi-strategy funds or alternative investments with a listed equity component. The UK equities desk manages funds that hold in excess of 90 percent of all of the asset manager's UK equities throughout this period. However, all trading transactions analyzed in the paper include all holdings of UK equities, irrespective of whether the fund manager is a member of the UK equities desk.

The funds managed by the UK equities desk held stakes in about half of the FTSE All Shares index constituents. The average individual stake increases over time, from roughly 1.9 percent to 3.0 percent. The asset manager is usually among the largest shareholders of its portfolio firms. In comparison, the Norwegian Government Pension Fund Global, the world's largest sovereign wealth fund, held 1.8 percent on average and BlackRock, the world's largest passive asset manager, held an average stake of 4.1 percent (year-end 2015).

Trading activity is shown in Panel B. The asset manager is a net buyer in aggregate, consistent with the well-documented increase in institutional ownership over time (e.g. Hendershott, Livdan, and Schuerhoff, 2015). Unconditionally, the probability of a trade occurring in a position is 2.5 percent on a given day, in other words a trade is executed roughly every 40 days. The probability of a sell trade is 1.2 percent, and a buy trade is 1.3 percent. Restricting the sample to the days when funds trade provides a conditional average trade size of 3.2 percent of holdings, or US\$ 751,000 (median trade size is US\$ 181,000).

In Figure 1 we show how active the main funds are using the Cremers and Petajisto (2009) active share metric, which is positively correlated with trading activity and negatively correlated with implied holding periods. Active share values indicate a range from almost-index funds with relatively low benchmark deviations all the way to aggressive stock picking funds.

3.2. The Asset Manager's Internal Organization and Investment Process

Figure 2 illustrates the UK equities desk's stylized monitoring, engagement and trading process and the number of individuals involved with each function; the desk is led by the Head of UK Equities. There are two main groups of individuals: Fund managers and governance specialists. Fund managers are responsible for fund performance. They make trading decisions and engage with the management of portfolio companies. Governance specialists engage with portfolio companies on governance issues, with the goal of gathering information, identifying risks, and ensuring effective board oversight. Almost all fund managers have a second role as internal analysts. In that role they cover one or more industries and issue internal "Buy", "Hold", and "Sell" recommendations. Most analysts are fund managers; in a minority of cases, analysts are not fund managers (5 in 2015). We distinguish trading by a fund manager who as an analyst has issued a recommendation for a particular stock from trading by another fund manager for the same stock. The remuneration of fund managers and analysts is sensitive to fund performance and accuracy of analysts' forecasts.

We use one of the larger stocks in the sample, Vodafone Group plc, to illustrate the frequency of meetings and objectives of fund managers and governance specialists with portfolio firms. We also describe the connections between those meetings and analyst recommendations, voting outcomes, and trading by fund managers. The asset manager's aggregate position in Vodafone fluctuates roughly between \$1.4 and \$5.5 billion during the 2007-2015 sample period, i.e. between 1.5 and 2.8 percent of market capitalization.

3.3 Significant Events: Case Study of Vodafone

Figure 3 illustrates the engagement process between the UK equities desk and Vodafone plc during the sample period 2007 to 2015. There are four timelines that mark events: fund manager meetings, governance specialist meetings, analyst recommendations, and shareholder votes. We also show, highly aggregated, the daily trades of all funds that hold Vodafone in their portfolio during the sample period.

On average, fund managers meet with Vodafone 3.4 times a year, and governance specialists meet 2.1 times a year. However, the governance specialists meet the firm more

frequently around 2007, when Vodafone was on the internal health warning list; during the two-year period 2007-2008 there were 8 meetings with Vodafone. The fund managers frequently meet with the CEO and CFO, whereas the governance specialists meet with the chairman and non-executive members of the board.

In 2006, the year preceding our sample, the relationship between Vodafone and the asset manager was tense. On June 30, the governance specialists had added the company to the warning list “on the grounds of concerns regarding board balance and composition, strategic governance, inappropriate remuneration policies and lack of responsiveness to investor concerns.” Adding to the flavor, fund managers were dissatisfied with the performance of the CEO, and the asset manager took the rare step of voting against the CEO’s reappointment in a 2006 shareholder vote. This vote against top leadership and the aggregate opposition of 14% (9.5% against, 4.5% abstain) of shareholdings was widely reported in the press. The asset manager also voted against the remuneration report in the 2007 shareholder vote.⁹

Yet at the same time, and despite the tension, the asset manager voted with management against a shareholder activist in the 2007 vote.¹⁰ And, more importantly, the analyst covering Vodafone in early 2007 was positive, and predicted that outstanding issues would be resolved: “The last company meeting suggested that the company is back on the front foot, with a strong statement on regulation [...] capex [...] and it would appear there is more certainty at board level”. The analyst also predicted that “Shareholder pressure only likely to go up now that [...] has started as Chairman. I think [the CEO] leaving is fairly inevitable.” As predicted, the incumbent CEO did step down in 2008. The board changes and new CEO appointment induced the governance

⁹ An internal memo by the head governance specialist explains the voting recommendation: “Voting against the re-election of [the CEO] (reason: lack of confidence in the executive leadership); Voting against the remuneration report (reason: increased emphasis in the future on TSR, high vesting for median TSR performance, concern re consultancy arrangements for departing chairman).” (Internal note 14 July 2006). The note also documents that the voting intentions “were discussed with and supported by the SL Investment Committee at its June meeting”.

¹⁰ The shareholder activist ECS pushed to spin off Vodafone’s minority holding in Verizon, the U.S. telecoms operator. The asset manager summarized that “we have discussed the substance of the resolutions with ECS and the Company. We have concluded that the resolutions are not in the best interests of our clients.”

specialists to remove Vodafone from the internal warning list on 13 July 2009. The changes triggered a change in analyst's recommendation from "Hold" to "Buy".

Finally, in the same figure we summarize the amount of trading during the sample, and its sensitivity to significant events. On a normal day, trading in Vodafone across all funds is 2.46 million USD on average, normalized to 100 percent in the figure. Trading on days of meetings with fund managers is 53 percent higher, and on days of meetings with governance specialists trading is 36 percent higher. Increases in trading are, not surprisingly, even more pronounced on the five occasions in the sample where the analyst upgrades or downgrades Vodafone, a 300 percent increase. The largest daily trade in Vodafone, made by any fund during the sample period, was a US\$ 212 million sell trade in 2014.

We next describe in some detail the interactions of fund managers and governance specialists with portfolio firms.

3.4 Engagements by Fund Managers and Governance Specialists

Table 2 shows the number of fund manager and governance specialist meetings with portfolio firms. Panel A reports the meeting frequency. In 2015 fund managers had 526 meetings with 271 firms, while governance specialists had more meetings, but with fewer firms (549 meetings with 179 firms). While meetings with governance specialists are less frequent, they involve larger stakes, both in dollar and percentage terms (not shown). Governance specialist resources thus appear to be allocated to more important stock positions, in line with the evidence in Fich, Harford, and Tran (2015), Kempf, Manconi and Spalt (2017), and Liu, Low, Masulis and Zhang (2020). The information gathered by governance specialists is passed on to analysts and fund managers both in writing and at joint meetings.¹¹

Joint meetings are infrequent, only 20 meetings with 16 firms. Such joint meetings take place either when there are general investor presentations or, when critical matters need to be

¹¹ Fund managers who hold UK stocks but are not part of the UK equities desk may participate in meetings with portfolio firms; the research and recommendations of the governance specialists are available to all fund managers.

discussed; the latter type of meeting would be attended by the Head of UK Equities and the Head of Corporate Governance.

Panel B reports the meeting characteristics. Fund manager meetings usually took place at a high level, with the CEO and the CFO, but only occasionally with the Chairman. Governance specialists mostly engage with the non-executive directors of portfolio firms, especially the Chairs of remuneration, nomination, and audit committees, as well as with the Chairman of the board. The number of meetings with the Chairman has increased dramatically over time, largely due to the increasing importance of the governance role (not shown). The governance specialist recorded all contacts with portfolio companies in an internal database, so we can observe the subjects that were discussed at the meetings. In about one half of cases, the focus of the discussion was board composition (Board), while compensation accounted for about one quarter, with environmental and social issues (the E and S of ESG) accounting for another 20 percent (not shown). Governance specialist meetings with portfolio firms specifically discussing company performance are rare (3.9 percent of all meetings).¹² Our data thus complement the evidence provided by Dimson, Karakas and Li (2015) and Hoepner, Oikonomou, Sautner, Starks and Zhou (2020).

Governance specialists can place a company on an internal “governance health warning” list. This occurs when there are significant concerns about governance based on several criteria. The warning is prominently indicated both on the trading platform used by fund managers and on the first page of analyst reports received by them. Adding a firm to the warning list is regarded as a significant event by both the fund managers as well as by governance specialists, and influences voting decisions.

An important difference between fund manager engagements and governance specialist engagements is that governance specialists focus their engagements on fewer firms, particularly those firms on the internal governance health warning list or, which even if not on the list, had a

¹² How the information production of governance specialists differ from fund managers is illustrated by their use of financial underperformance as a signal. Governance specialists regularly apply data screens to the fund managers’ holdings. Strong underperformance of a stock is treated as an indicator of potential governance problems currently unknown to the asset manager, and therefore a potential trigger for a meeting. A key objective of a meeting then is to tease out information about such hidden governance issues and provide it to fund managers.

negative vote in the previous year. While the governance specialists interact with target boards on governance, audit and compensation related issues, fund managers are responsible for non-governance issues, including raising capital, M&A, divestitures, strategy, and performance. The fund managers and the governance specialists sit on the same floor and meet regularly both formally and informally, deliberately creating a direct channel from corporate governance and stewardship to trading.

3.5 Internal Analysts

In their role as analyst, fund managers regularly produce research, and issue “Buy”, “Hold” and “Sell” recommendations for individual stocks on an ongoing basis. Analyst recommendations are for internal consumption only and not made public. We refer to these internal analysts as buy-side analysts, to contrast them with sell-side analysts whose recommendations are made public. The analysts use information and insights from their own company meetings, input from the governance specialists, broker contacts, and other information. In addition to specific recommendations, analysts produce detailed company reports and quarterly industry reports. All information produced by analysts is made available to fund managers and governance specialists. For example, in 2015, 13 analysts made recommendations for 372 portfolio companies across 40 industries. In Panel C of Table 2 we report descriptive statistics for changes in analyst recommendations, both downgrades and upgrades. In 2015 there were 66 downgrades and 67 upgrades for the 372 portfolio companies.

3.6 The Voting Manager

The voting manager, who is a member of the governance specialists, carries out voting on behalf of all funds. Holdings are voted as a block. Negative votes require internal approval by senior leadership. In Panel D of Table 2 we report votes cast by the voting manager at shareholder meetings. In 2015, the asset manager voted against or abstained on at least one resolution in 22 percent of meetings (‘any disagreement’). Disagreement with management is concentrated in the three key areas (not shown in the table): compensation, board composition and socially responsible investment.

Voting decisions are discussed between governance specialists, the voting manager, and the relevant analyst. While meetings are an important channel and to express views to the managers and directors of portfolio companies in private, voting against management, or an abstention, is a public display of dissatisfaction.

4. Meetings with Portfolio Firms

In this Section, we examine how trading by fund managers is related to meetings with portfolio firms. To better understand our analysis, consider the following example of a fund, which we call the discretionary equity (DE) fund. The DE fund held between 57 and 76 stocks at any one time. The fund's style incorporated active but not aggressive stock picking, with an active share of 51.8 and annual turnover of 82.5 percent. During our sample period the fund manager executed 1,284 trades in existing positions, or about 80 per month (excluding new positions and exits).

One of the stocks held was BBA Aviation plc, an aviation services company. On March 8, 2007, a meeting was scheduled at the offices of the asset manager. The meeting was attended by BBA's CEO and CFO, and from the asset manager's side by the analyst covering the firm. The analyst was very bullish about the meeting and the stock. His meeting notes state that the meeting had been a very good one, that it was clear that management and the business were back on the front foot, and that it was hard to see how the shares would underperform. The meeting notes also stated that *as a result* of the meeting the analyst would upgrade the internal stock recommendation from a "Hold" to a "Buy". The fund manager and analyst were both members of the UK equities desk and sat on the same floor. The analyst was also a fund manager, but did not hold any positions in BBA stock at the time.

The fund manager—who had not attended the meeting with BBA—on the same day was a buyer of the stock and increased his position in BBA by 6.8 percent, followed by another 3.3 percent the next day. Among the funds holding BBA, several others similarly increased their positions on the meeting day. This pattern—trading precisely on meeting days with portfolio companies—applied to many of the fund manager's trades for the DE fund. For a given stock, the probability of trading on a normal day—i.e. a day without a meeting with executives of that

specific firm—was 4.7 percent. On a meeting day, however, this probability was over three times higher, at 15.7 percent.

We extend this setting to our whole sample in Table 3, Panel A. We examine the relation between fund manager meetings and governance specialist meetings with portfolio firms and trading activity. Considering these meetings separately is necessary since, as previously described, they involve different corporate constituencies and have a different purpose. Governance specialists focus on wider issues and potential governance problems, which makes it more likely that meetings lead to sell rather than buy trades. Instead, fund managers will typically use meetings to test their priors against the explanations and tone of management responses. We use the following specification:

$$Trade_{ijt} = \alpha + \beta' X_{it} + \gamma' Y_{ijt} + \Lambda + e_{ijt}, \quad (1)$$

where the dependent variable is the daily net percentage change in the number of shares held in portfolio company i by fund j on trading day t in Columns (1) to (3) and in Columns (4) and (5) a dummy variable indicating either a sell trade or a buy trade taking place (1) or not (0), in company i by fund j on trading day t . We cap daily buy trades at 100 percent to reduce the impact of rapid position building. All columns use the full unbalanced panel of fund-stock positions during the 2007-2015 sample period, except in Column (3) where the sample is restricted to those 270,700 fund observations with non-zero trading activity. Our main variables of interest are the dummy variables that indicate meetings with portfolio firms; X_{ijt} is set to one on day t when a fund manager or a governance specialist meet with a portfolio company. Y_{ijt} is a set of stock-fund-level controls on day t , and Λ are stock, fund, and trading day fixed effects, as indicated.

The baseline regression in Column (1) shows that on the day where governance specialists meet with a portfolio firm, the average fund reduces its net position by only a small amount, 11.8 basis points; in contrast we see an increase for meetings held by fund managers of a similar magnitude, 13.9 basis points. These coefficient estimates are similar once fund-stock level control variables and stock, fund, and trading day fixed effects are added to the specification (Column 2). When we condition on a trade occurring, the coefficient estimates rise sharply (Column 3). For

governance specialist meetings, the decrease in positions held is 420 basis points and for fund manager meetings, the increase in positions held is 311 basis points. Therefore, compared to the entire sample of trading days, private meetings of fund managers effectively double buy trades on the day of the meeting, while private meetings with governance specialists increase sell trades (or reduce buy trades) by 132 percent (the benchmark level of trading on a given sample day is 318 bps, shown in Table 1, Panel B).

The trading patterns shown in Columns (4) and (5) suggest that governance specialist meetings appear as overall negative events; they both significantly increase the probability of selling in Column (4), and significantly decrease the probability of buying in Column (5). In contrast, fund manager meetings are associated with more mixed trading patterns, with a strong increase in the probability of buying, and a small but still significant increase in selling. If trades are motivated by meeting-related insights, then governance specialist meetings are on average interpreted as negative, while fund manager meetings lead to greater differences in opinion. This result may reflect that governance specialist meetings are triggered by concerns about governance issues, and that are not routine.

Such concerns are often linked to firm being added to the warning list by governance specialists. The warning status is flagged in the trading platform used by fund managers, but is not communicated to the portfolio firm. In Panel B, Columns (1) and (2) confirm that the warning status has a negative and significant coefficient, indicating on average stronger selling (or reduced buying) of stocks while the warning is active. To illustrate magnitudes, and considering that stocks are flagged by the governance specialists on average for 352 days, the coefficient estimates translate into cumulative reductions in holdings of 8.0 to 11.8 percent (see Columns (1) and (2)).¹³ Importantly, the coefficient of the interaction of fund manager meetings and warning is also negative, indicating that while a company is flagged, fund manager meetings lead to net selling;

¹³ We alternatively calculate the actual (unadjusted) percentage change in holdings for each position for the duration of the position being on the warning list. This warning list-period change is strongly skewed due to significant position build-ups in a significant number of stocks with warnings, especially among large-caps. The median change is negative at -2.4 percent across all stocks, negative at -15.6 percent for the smallest firms (lowest three market cap deciles), and positive at 2.6 percent for large firms (highest three deciles of market cap).

without a warning the meetings lead to net buying. Thus, governance specialists appear to generate information that fund managers use in their trading decisions. Specifically, information about governance concerns is associated with reduced buying activity by fund managers.

We would expect trading to take place subsequent to the meetings (even on the same day). It might lead to distrust between the asset manager and the portfolio firm, if the funds sold in advance of a meeting, which was intended to resolve a governance problem. Moreover, the outcomes of such meetings are uncertain; while they on average lead to selling, a significant proportion lead to buying, suggesting that meetings sometimes lead to the resolution of governance issues or other positive news.

In Columns (3) and (4), we consider longer trading windows around governance specialist and fund manager meetings, to quantify the size of trades that coincide with the specific meeting days. We separately consider $[-1,+1]$ 3-day and $[+2,+5]$ 4-day windows around the meeting (the trading day prior to the meeting is included to capture possible front-running). As before, we restrict the sample to days with trades to obtain conditional estimates of trading. For the $[-1,+1]$ window around governance specialist meetings we obtain average daily sell trades of 3 percent, and for the $[+2,+5]$ window we obtain average daily sell trades of 1.4 percent (Column 4). For fund manager meetings, we obtain average buy trades of 2.9 percent per day for the $[-1,+1]$ window, and 2.1 percent per day for the $[+2,+5]$ window. These results confirm that meetings with portfolio firms are associated with economically large trades that continue for several days after the actual meetings take place. For governance specialist meetings, front running on day -1 is minimal. For fund manager meetings, trading on day -1 is elevated.

We use the probability of a given fund trading around meetings of governance specialists with portfolio firms as a benchmark of a fund's style. Specifically, some funds will persistently trade in response to meetings, while other funds do not. The results (Figure A1 in the Appendix) strongly suggest that funds specialize. Funds that trade around governance specialist meetings also tend to trade around both fund manager meetings ($\rho=0.58$) and around analyst recommendation changes ($\rho=0.49$), as well as around shareholder votes ($\rho=0.43$). Such trading is itself highly correlated with annual turnover of the fund ($\rho=0.60$). The correlation with active share however is

low (and statistically insignificant), indicating that such trading is not necessarily associated with systematic portfolio tilts away from the benchmark. The correlation with fund size is similarly low.

How do meetings with portfolio firms translate into trading decisions? Given that fund managers place outsized trades not only on days of fund manager meetings with portfolio firms, but also on days of governance specialist meetings—in which fund managers do not participate — suggest several possible explanations: First, the meetings simply coincide with the release of public information. Second, the meetings generate an information advantage for fund managers. Finally, fund managers *believe* that the meetings generate such an information advantage. As the Carillion example makes clear, and other narratives of meetings confirm, such meetings are not for the purpose of simply informing the portfolio firm of a decision to sell (or buy).

To exclude that meeting dates merely capture public information releases, we check how the meetings are timed relative to earnings announcements. We use this setting for two reasons. First, earnings reports are among the most important public signals for analysts and fund managers. Second, they occur on pre-determined dates and with regular frequency, so meetings can be scheduled deliberately around those dates. Our analysis is summarized in Figure A2 in the Appendix. Fund manager meetings occur with significantly higher probability *after* earnings reports, but not before. In contrast, governance specialist meetings are scheduled independently from earnings report dates. The first implication of this is that the relative timing of governance specialist meetings is informative, since the sharp spikes in trading on and following meeting days are unlikely to be explained by public information, at least as far as earnings reports are concerned. Second, fund manager meetings could plausibly be attempts to *interpret* or *clarify* information that has recently become publicly available in earnings reports.

5. Meetings, Analyst Recommendations, and Performance of Trading

5.1 Trading

The subsequent tests analyze the trading by fund managers around analyst recommendation changes. If internal analyst recommendations contain information, then an upgrade or downgrade

of a specific stock should coincide with trading by fund managers. These tests of trading activity are reported in Table 4. The variables of interest are sell signal—a downgrade of the stock (“Buy” to “Hold”, “Buy” to “Sell”, “Hold” to “Sell”), and buy signal—indicating an upgrade (“Sell” to “Hold”, “Sell” to “Buy”, “Hold” to “Buy”). The event dates of the sell and buy signals are the internal publication dates of the revised internal analyst recommendations.

In Panel A of Table 4, the results confirm that analyst signals and fund manager trades are strongly related. The baseline regression in Column (1) shows that on days where analysts issue a sell signal, the average fund reduces its net position by a modest 198 basis points, while buy signals lead to increases in net positions by 132 basis points. Column (2) shows that coefficient magnitudes are similar when controlling for fund-stock level variables and fixed effects. The changes in net positions are magnified when we condition on a trade occurring: the net decrease in fund holdings on days with sell signals is 17.2 percent, and for buy signals the net increase is 16.5 percent. These trades are economically significant. Compared with the benchmark level of trading on a given day, an analyst sell signal reduces trades by 5.4 times, and a buy signal increases trades roughly five-fold.

Column (4) extends the analysis to longer windows around analyst signals. For each trading day during the $[-1,+1]$ window around sell signals we estimate average sell trades of -17.7 percent, and additional average sell trades of -17.4 percent during the $[+2,+5]$ window. Conversely, for buy signals we obtain average buy trades of 20.6 percent and 13.0 percent for the $[-1,+1]$ and the $[+2,+5]$ windows, respectively. For robustness we also calculate the actual cumulative changes in positions in univariate tests without any control variables and obtain large sell trades of roughly 29 percent around sell signals and 36 percent for buy trades around buy signals. Front running is economically small in all scenarios.¹⁴

Columns (5) and (6) show that buy signals have more dispersion in how they translate into trades than sell signals. Buy signals increase the probability of a buy trade by 623 basis points but

¹⁴ For both sell and buy signals, the bulk of trading occurs from the day following the change onwards. Front-running trades on day -1 are not zero but economically small at -1 to -2 percent for sells and 0.3 to 0.4 percent for buys.

also increase the probability of a sell trade by a much smaller but still significant 28 basis points, indicating a share of contrarian traders.

Next, we consider how analyst signals are generated. We hypothesize that prior meetings with portfolio firms can generate information advantages that influence those signals. Here, we focus on governance specialist meetings with portfolio firms. These have the advantage that they are *not* attended by the analysts issuing the recommendation change, and as such, allow a cleaner test of information transmission. If fund managers' trading decisions are driven by information, and if they react more strongly to analyst signals that coincide with governance specialist meetings, then it is likely that information advantages over other market participants have passed from governance specialists to fund managers. The Carillion case discussed in the Introduction illustrates this interaction.

Extending the setting of Carillion to our whole sample in Panel B of Table 4, we follow equation 1 and estimate

$$Trade_{ijt} = \alpha + \beta' \times PriorGSMeeting \times X_{it} + \gamma' Y_{ijt} + \Lambda + e_{ijt}, \quad (2)$$

where *Prior GS Meeting* is an indicator variable set to one when a governance specialist has a meeting just prior to the analyst recommendation change, and zero otherwise. The parameter of interest is β , which captures the change in trading on the day of an analyst recommendation change for cases where a governance specialist meeting has recently taken place relative to recommendation changes without a recent meeting. How recent the meeting is, is indicated in the column title. To illustrate, in Column (4) Prior GS Meeting indicates that a governance specialist meeting takes place within 16 to 20 trading days prior to the recommendation change. As before, standard errors are clustered at the fund level.

In Column (1), where we condition governance specialist meetings to take place within 1 to 5 trading days prior to the recommendation change, selling in the portfolio firm's stock increases from -1.9 percent to -3.3 percent if sell signals follow in the wake of governance specialist meetings (the day of analyst recommendation changes does not exactly coincide with governance specialist meeting days in the sample). In contrast, the amount of buying in the portfolio firm's

stock roughly doubles if buy signals follow governance specialist meetings, from 1.3 percent to 2.6 percent. When the number of days between the meeting and the recommendation is increased, the coefficient for the interaction of sell signal x Prior GS Meeting becomes stronger during the [6, 10] window, and loses significance thereafter, while the interaction buy signal x Prior GS Meeting turns negative and remains statistically significant. The latter result suggests that governance specialist meetings, with some delay, negatively affect fund managers' attitudes even in those cases where they receive otherwise positive analyst signals.

Thus, on average, governance specialist meetings amplify the trading response to analyst recommendation changes. Our interpretation is that information about portfolio firms obtained during those meetings is on average negative, and it is this more negative information that amplifies the trading response around sell signals, and diminishes the usually strongly positive effect of buy signals.

Table 5 provides further analysis on how fund managers trade in response to signals, considering their specific roles within the equities desk. We find that fund managers trade not only on their own signals, but also on signals of others; fund managers that do not react to signals tend to be already underweight or overweight the stock in the direction of the recommendation change. Recall that virtually all fund managers are also analysts. Therefore, there are two settings: in the first, the fund manager holds stocks in which as an analyst she issues a recommendation change, and the fund manager decides whether to trade on her own signal. In the second setting, the fund manager holds stocks in which a different analyst issues a recommendation change, and the fund manager decides whether to trade on another's signal. We compare the incidence of all trades by fund managers trading on all analyst signals with those fund managers trading on their own signals, i.e. the specific cases where the fund manager holding a specific stock is at the same time the analyst issuing a recommendation change on the same stock. We term the latter as "own-signal" positions and trades. For a new sell signal, 19.4 percent of positions held by all fund managers trade in the expected direction and execute net sell trades during the [-1,+5] window around the signal. This percentage is higher at 35.4 percent among own-signal trades. Considering the opposite trade, 5.3 percent of all fund managers are contrarian traders and are net buyers in

response to sell signals. Among own-signal trades this percentage is similar at 6.0 percent of positions.

The majority of positions do not trade, including those cases where they do not trade on their *own* signals. This might at first glance seem surprising but is driven by several effects. First, non-trading fund managers on average exhibit portfolio tilts at the time of the recommendation change that already are directionally in line with the new signals, i.e. for sell signals they are more likely to be underweight, and for buy signals more likely to be overweight. We show these portfolio tilts in Figure A3 in the Appendix. Second, non-trading is concentrated among certain funds with overall lower annual turnover and lower probability that they trade around other key events in our data, for example meetings with portfolio firms and shareholder votes. We described this specialization of funds in Section 4 and Figure A1. Third, fund mandates constrain portfolio tilts from becoming too extreme, which in some cases may limit some funds' ability to take advantage of trading opportunities. Finally, fund managers have stronger convictions on their own trading signals, or inversely they are (too) skeptical of other analysts' signals. This latter effect is obvious when comparing all positions with the subsample of own-signal positions. Among all fund managers, the share of positions that do not trade around sell signals is 75.3 percent, while among own-signal positions this share is far lower at 58.5 percent. We will show in the next section that non-trading potentially is leaving money on the table.

For buy signals, patterns are almost perfectly symmetric: (i) the majority of positions that do trade, trade in the expected direction, (ii) a significant but smaller number of trades are against the signal in contrarian fashion, (iii) the likelihood of trading in the expected direction is higher for own-signal trades, and (iv) the majority of positions do not trade in response to buy signals.

5.2 Performance of Trading

The large volume of trading around analyst recommendation changes documented above is more important if it contributes to fund performance. Thus, we investigate the information content of recommendation changes by analyzing the performance of trades made by fund

managers, both sell trades—representing net sell trades made around sell signals— and buy trades—representing net buy trades around buy signals.

5.2.1 Trading Around Recommendation Changes

As in Table 4, we consider performance during the [-1,+5] day window around the recommendation change (we also consider longer and shorter periods). The results are shown in Table 6. All values are averages unless otherwise indicated. In Panel A, we first consider sell trades. The initial position size, i.e. the dollar amount held on day t-1, is \$10.9 million. Stocks that receive sell signals by analysts show significant negative raw returns. If *no* trading had occurred, that is, hypothetically assuming a passive strategy, the position—its value based on the closing price at t-2—would have incurred a raw return of -3.51 percent value-weighted and -4.95 percent equal-weighted.

We next calculate the abnormal return due to active trading. The abnormal return for each position, adjusting for inflows and outflows due to trading, is the actual value change during the same window, net of the passive strategy, as a percentage return on the position value (closing price on day t-2).¹⁵ Since we do not know the intraday timing of trades, we make assumptions on when fund managers are executing their trades during the day. The asset manager is a large and sophisticated institution, with all equity trading executed internally, with no outsourcing. We alternatively assume that trades occur at the opening price (fast trading) or at the closing price (slow trading). We observe daily positions, and therefore the slow trading assumption is the lower bound of realized performance.

With fast trading, the abnormal return due to trading is 36 bps value-weighted, and 83 bps equal-weighted, with slow trading it is lower at 27 bps value-weighted, and 40 bps equal-weighted. All estimates are statistically significant at the 1 percent level. Thus, fund managers generate

¹⁵ For any position i in stock j the abnormal return is $AR_{i,j} = [(S_{i,j,T} - S_{i,j,t-2})P_{j,T} - \sum_{t=1}^T (\Delta S_{i,j,t})P_{j,t}] / (S_{i,j,t-2}P_{j,t-2})$, where $t=0$ is the recommendation change, $S_{i,j}$ is number of shares held, P_j is price, and $\Delta S_{i,j}$ is number of shares traded. The first term is the capital gain over the period; the second term is the net investment in the stock over the period, the denominator is initial position value.

significant outperformance by selling down their exposure to falling asset prices. These returns are before trading expense.

The picture is similar for buy trades, which are roughly comparable in size at \$ 9.4 million for initial fund positions, but these trades are more influenced by very large trades in relatively smaller positions. Stocks that receive buy signals experience significant positive raw returns. Given a hypothetical passive strategy, the position would have incurred a raw return of 0.22 percent value-weighted and 0.92 percent equal-weighted during the [-1,+5] window. Buy trades—by increasing exposure to winning equities—generate value-weighted abnormal returns of 40 bps and 37 bps, under fast and slow trading assumptions, respectively. Equal-weighted abnormal returns are far larger, at 206 bps and 131 bps, respectively. Although all our results are winsorized at the 1 and 99 percentiles, these equal-weighted abnormal returns are influenced by very large trades in relatively small positions.

In Panel B, we consider returns over alternative windows of up to 20 trading days following the recommendation change. In the Panel we show value-weighted returns under fast trading assumptions; Table A2 in the Appendix shows all three other combinations of fast vs. slow trading and value- vs equal-weighted returns. For sell trades, passive returns around sell signals decrease as the window under consideration lengthens, consistent with a permanent price impact and negative information being incorporated by market participants, rather than the price impact of trading by the asset manager itself. For the [-1,+10] window, raw returns decline to -5.0 percent, and the abnormal returns from trading increase to 2.4 percent. For the [1,+20] window, the passive returns decline further to -6.3 percent, while the abnormal returns increase sharply to 7.6 percent.

For buy trades, passive returns that are positive at 1.1 percent for the shortest [-1,+1] window turn negative over longer windows. For the longest [-1,+20] window they are -0.8 percent, while the abnormal returns from trading are slightly over 5 percent. Abnormal returns are always positive, and increase in size with longer windows, suggesting that fund managers are selectively buying stocks that are rising, and not buying stocks that reverse their early gains.

We consider the asset manager's share of daily volume, to have a sense of the degree to which these returns may reflect price impact generated by the asset manager's trades. For this, we

divide the daily change in the asset manager's aggregate holdings by overall trading volume on the London Stock Exchange, for each stock on each day.¹⁶ For the entire sample, the asset manager accounts for 1.3 percent of daily volume for a given stock. For the sell trade events from Panel B, the asset manager's share is higher and ranges from 6.1 percent of daily volume during the $[-1,+1]$ window to 4.4 percent during the $[-1,+20]$ window. For buy trades, the share of daily volume ranges between 4.2 and 5.8 percent for those same windows.

In Panel C, we split abnormal returns both by market cap of portfolio firms and by the size of aggregate stake held. Consistent with earlier value-weighted results, abnormal returns due to trading are more pronounced for small firms than for large firms, and for small stakes than for large stakes. For example, for sell trades, fund managers generate abnormal returns of 210 bps for the smallest quintile of firms, compared with 37 bps for the largest quintile, assuming fast trading. For buy trades, abnormal returns again are overall more variable and for the largest firms they are equal to zero or even negative. These results suggest that although abnormal returns are significant for the cross-section of holdings, they are more concentrated in small stocks and smaller stakes, where illiquidity and mispricing effects may offer fund managers greater opportunities to generate abnormal returns.

Finally, in Panel D we consider whether the trading of fund managers is commensurate with the precision of sell and buy signals and find that fund managers may be trading too little. We split recommendation changes into two samples: (i) cases where at least one fund holding the stock trades around the recommendation change, and (ii) cases where—despite the analyst upgrading or downgrading the stock, and one or several funds holding that stock—no fund trades the stock. For sell signals, as one would expect, stocks with at least one fund trading experience more negative returns than those stocks where no fund trades, consistent with fund managers trading where they (correctly) have stronger convictions. But even stocks where *no* funds trade experience large negative returns. For buy signals results are symmetrical; those stocks where at

¹⁶ We drop roughly 1 percent of observations where apparently because of data problems the asset manager's trading volume exceeds 100% of market volume.

least one fund trades experience larger positive returns, and again stocks without any fund trading experience smaller but still significant positive returns.

The large returns for stocks without any trading suggest that fund managers are not sufficiently exploiting those potentially valuable trading opportunities—the previously discussed reasons for non-trading notwithstanding.

5.2.2 Trading Around Recommendation Changes and Meetings with Portfolio Firms

It is useful to try and relate the profits on trading to the information available to analysts. Note we have access to all internal analyst reports, which include the analysts' narrative of what caused them to change their minds on a given stock. Yet, not surprisingly, analysts rarely state that their opinions are based on a single specific piece of information about a portfolio firm. Analysts also very rarely mention the specific sources of information that determine their judgement. Even in cases where we know that the analyst has recently participated in a high-level meeting with the portfolio firm's CEO and CFO, the meeting may not be mentioned in the analyst's narrative. Instead, we provide indirect evidence of how significant new information generated from meetings is disseminated through trading.

To better understand our approach, consider the example of Provident Financial Plc, a sub-prime lending firm. In early 2009 the asset manager held a sizeable stake fluctuating around 7 percent. Between March 23 and April 28, 2009, governance specialists engaged with the firm in a series of meetings, which revolved around a controversial new executive compensation plan. The specialists expressed strong dissatisfaction with many aspects of the plan, one of which was a one-time bonus payment for "exceptional performance" to a group of executives, including the CEO. After one meeting with the company, the governance specialist in charge, wrote that "this arrangement seems opportunistic, unjustified and unnecessary. Such one-off awards are not consistent with the broader economic environment." Importantly, the specialist also noted a negative impression about how the portfolio firm was handling the engagement process itself:

"That some of these significant changes have already been made without consultation is unwelcome and we should not support the Rem Report or the re-election of the Rem Com Members. [...] We

discussed the consultation process and the changes with the company [...]. They listened to our views but did not seek to make any changes to their approach to these matters. During these discussions it transpired that the company had provided different investors with different stories as justification for the changes.”

Our interpretation of the event is that the asset manager gained significant negative insights into the portfolio firm during those meetings. They contributed to the internal analyst covering the firm downgrading it from “Buy” to “Hold” on May 8, 2009, 11 days after the final meeting (the analyst report mentions the compensation controversy). On the day of the downgrade, 43 funds held the stock, of which 11 sold down the stock during the [-1,+5] window around the downgrade. A decline in the share price during the same window of 7.1% took place, resulting in an abnormal return due to trading of between 29 to 91 bps, under slow and fast trading assumptions, respectively.

We extend the setting to our full sample in Table 7, which reports the equal-weighted trading performance around analyst recommendation changes with and without coinciding portfolio firm meetings during 25 trading days preceding the recommendation change. With a preceding meeting, the abnormal return due to active trading is significantly higher at 89 bps for sell trades and at 78 bps for buy trades, than the abnormal return (39 and 17 bps, respectively) for recommendation changes without such a meeting, using fast trading assumptions. When we alternatively use slow trading assumptions, the difference increases slightly. That returns are larger in those cases where meetings coincide with recommendation changes suggests more significant changes in the information set around those events. The implication is that when meetings precede recommendation changes, significant new information is generated in the meeting, and is disseminated via trading. The dollar gains are also economically large. The asset manager’s total gains from the subsample of short-term trading activities around meetings with portfolio firms described in Table 7 are between US\$ 1.4 billion and US\$ 1.7 billion depending upon fast and slow trading assumptions, respectively; these gains are before the deduction of transaction costs.

6. Shareholder Votes and Disagreement

For the asset manager, abstentions and votes against management of the portfolio company are a signal of intense dissatisfaction with the response of management to previous meetings and engagements with the governance specialists. To illustrate, consider the example of Sports Direct plc, a founder-controlled sports retailer. By 2015, the asset manager had had a tense relationship with the firm's CEO and founder for many years. Governance specialists had added the firm to the internal governance health warning list shortly after the 2007 IPO, and the company continued on this warning list throughout the sample period. The asset manager had voted against management for several years in a row and had engaged with management to bring about change. The analyst recommendation alternated between "Hold" and "Buy" several times during the years. We focus on the last shareholder vote in our sample on September 9, 2015, when 17 funds held the stock. Ahead of the meeting, governance specialists had reached the conclusion that disagreement with top management about governance was escalating. As a result, at the shareholder meeting the asset manager voted against management proposals no less than five times. The voting manager summarized the reasoning in an internal note sent to the head of the UK equities desk:

"Our Guidelines suggest that we oppose remuneration arrangements that are not in the best interests of our clients. We would therefore like your permission to vote against the resolutions to approve the Remuneration Policy and to amend the 2015 Bonus Share Scheme. In addition, and in view of the continued failure of the REMCO [remuneration committee] to address our most serious concerns and in view of the wider concerns about governance at Sports Direct, we would like your permission to vote against three directors [named]."

In the case of Sports Direct it was clear that the issues could not be resolved. As a consequence, during a [-25,+25] day window straddling the vote, of the 17 funds holding the stock, 11 did not trade, while six funds sold down their stakes, and not a single fund was a buyer. Those six funds reduced their holdings substantially, by on average 33.7 percent. Eventually all funds disinvested.

We show below that Sports Direct is not an isolated case. Negative votes are associated with more intense engagement prior to the vote, and significantly more selling, and less buying around the shareholder vote.

First, we compare the engagement of governance specialists with portfolio firms around shareholder votes, using three measures of engagement: (i) the number of specific topics discussed, (ii) the number of contacts, where a contact could be a physical meeting, a phone call, an email or a letter, and (iii) the tone of voice in the meeting notes taken by the governance specialists; we use the total number of negative words divided by the total number of positive and negative words in those notes, where negative and positive words are based on the dictionary by Loughran and McDonald (2011). All three measures are calculated daily for each fund-stock position during the [-25,+25] day window around the shareholder vote, and averaged for each event day.

The results are shown in Figure 5. Shareholder votes with disagreement are associated with large increases in the number of issues being discussed, where there is a clear spike ahead of the vote. In contrast, without disagreement there is no such spike. Regarding the number of contacts between the governance specialists and portfolio firms the patterns are very similar: votes against are associated with a large increase in the frequency of contacts, compared with votes without disagreement.

Second, we extend the analysis presented for Sports Direct to our whole sample in Table 8, where we consider the same [-25,+25] window and conjecture that votes against the target firm are associated with less buying and more selling. We estimate

$$Trade_{ijt} = \alpha + \beta' \times AnyVoteAgainst \times X_{it} + \gamma' Y_{ijt} + \Lambda + e_{ijt}, \quad (3)$$

where the main variable of interest, *AnyVoteAgainst*, is an indicator variable of whether (1) or not (0) the asset manager votes against at least one management proposal, which is the case in 6 to 21 percent of shareholder votes, depending upon the years.

The results in Columns (1) and (2) show that trades increase on days with shareholder votes, with the magnitude of the coefficient being similar with and without control variables and fixed effects. A vote against the firm is associated with a significant reduction in the size of positions. Conditional on trading in Column (3), a vote against leads to 11.2 percent lower holdings. Considering a longer [-1,+5] window of trading around the shareholder meeting in Column (4) shows mean reversion in trading for votes without disagreement, and sustained selling

around votes against. Columns (5) and (6) confirm that while there are contrarian traders that sell on votes without disagreement, trading is largely in the same direction on the day of a vote against, namely reduced buying.

We also disaggregate shareholder votes by the intensity of disagreement, and distinguish between (i) votes with no disagreement, (ii) votes with at least one abstention, and (iii) votes with at least one vote against.¹⁷ We would expect selling to be more pronounced for more intense disagreement. The results are shown in Figure 4, the top part referring to all positions held by the asset manager, and the bottom part referring to conditional results for positions with at least one trade during the [-25,+25] window. There is an economically large difference in cumulated trades for shareholder meetings with and without disagreement; where there is no disagreement, positions increase by 16.1 percent more during the 51 trading days than when there is disagreement. The difference in trades however is almost as large for abstentions (14.3 percent) as for votes against, suggesting that abstentions are little different from votes against.

The empirical results presented so far are consistent with those of Li, Maug, Schwartz, and Ziv (2018), who rely on daily institutional trades across a range of asset managers by drawing on a subset of institutional trades from ANcerno (e.g. Chemmanur, He, and Hu, 2009 Puckett and Yan, 2011). Li et al. show that investor trades are significantly related to disagreement in shareholder votes based on the voting outcome. Specifically, they find that investors sell if they disagree with other shareholders, while disagreement with management (or with ISS) does not lead to increased selling.

Consistent with the discussion of Li et al., in our results the disagreement with management arises *prior* to observing the vote that signals dissatisfaction with the response of management and the board to the asset manager's demands. The interactions with the company prior to the vote and the voting outcome provide relevant information for the fund manager about the attitude of the portfolio firm, and the views of other shareholders.

¹⁷ In the UK majority voting is the norm and management resolutions need a majority of “for” votes relative to “no” votes to pass. Shareholders can express dissatisfaction by voting “abstain” or withholding votes without taking the risk that a resolution might not pass by accident (Glass Lewis 2019).

To capture new information of fund managers, we interact disagreement expressed through shareholder votes with changes in analyst recommendations around the vote. The analyst signal captures the underlying attitude of the equities desk towards the company, including the opinion of fund managers and governance specialists. The interaction creates six discrete assessments. A “buy” signal combined with a vote in favor of all management proposals (“no disagreement”) is unambiguously positive, while a “sell” signal with a negative vote (“disagreement”) is unambiguously negative. Apparently contradictory combinations are more interesting: There are “buy” signals with negative votes; the analyst believes that the issue can be resolved, or the price is sufficiently low to warrant a buy recommendation.

The results in Figure 6 are striking. Fund managers increase their positions in “buy-no disagreement” cases by 24 percent, while they decrease their positions in “sell-disagreement” cases by 10 percent, a difference of 34 percent during the 51-day period. The intermediate cases give smaller differences in trading, but they follow the same pattern.

As in Sports Direct, votes against (and abstentions) are preceded by more intense engagements by governance specialists, and are associated with analyst downgrades, which lead to more selling. While there is frequently no unanimity amongst fund managers, in aggregate the pattern is clear, dissatisfaction leads to selling, and as such partial exit.

7. Conclusion

In this paper we open the black box of the day-to-day activities of a large active asset manager to provide evidence of whether and how monitoring and engagement translate into institutional trading decisions. Institutional investors frequently express their commitment to active ownership, while sceptics have argued that asset managers have little incentive to monitor and engage with their portfolio company. We find that the asset manager’s high-level meetings with portfolio firms inform internal analyst opinions, generate more intense trading in portfolio firms precisely on meeting days, and contribute to performance. Our results highlight how fund managers and governance specialists working as team are able to generate advantages in active asset management.

The analysis shows that active management has advantages because it makes stewardship activities profitable. In comparison, the returns to stewardship for passive funds are likely to be smaller since the trading benefits that we document do not accrue to them. One solution could be the combination of active and passive investment under the same asset manager, a strategy that some of the largest passive managers have already started to pursue.

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Table 1
Summary Statistics for Holdings, Funds and Monitoring Events

This table reports summary statistics for SLI holdings, funds and monitoring events. Panel A distinguishes between funds that are managed by the UK equities desk and other parts of SLI. Funds are included if they hold at least one UK stock. Statistics are shown at the end of each period. Panel B reports average trading statistics. Sample Full includes all 14.7 million daily fund-level positions during the 2007-2015 sample period. Sample Trades restricts the sample to only those 369,852 daily observations with non-zero trading activity. Trades (SH) is the daily net percentage change in the number of shares held in the portfolio company per fund (SH); Trade size is the per day dollar amount traded in thousands; Prob(Trade) is a dummy variable indicating whether (1) or not (0) a trade is made on day t , with Prob(Sell) and Prob(Buy) being the corresponding dummies for Sell and Buy trades.

Panel A: Holdings

| Date | FTSE All Share Stocks | Stocks held | | Number of funds | | Number of Positions across all Funds | Aggregate TA (\$ billions) | Average Aggregate Stake Held |
|---------|--------------------------------|-------------|---------------------|-----------------|---------------------|---|-------------------------------|------------------------------------|
| | | All | UK Equities Desk | All | UK Equities Desk | | | |
| 2007m6 | 692 | 685 | 369 | 95 | 60 | 6806 | 66.7 | 1.86 |
| 2007m12 | 706 | 680 | 380 | 99 | 64 | 7412 | 63.4 | 1.92 |
| 2008m6 | 670 | 667 | 377 | 98 | 63 | 7817 | 53.4 | 2.12 |
| 2008m12 | 671 | 630 | 376 | 100 | 61 | 7940 | 28.7 | 2.10 |
| 2009m6 | 624 | 619 | 364 | 101 | 60 | 8144 | 30.5 | 2.15 |
| 2009m12 | 626 | 623 | 366 | 99 | 57 | 7790 | 38.9 | 2.07 |
| 2010m6 | 645 | 634 | 366 | 98 | 57 | 7739 | 31.2 | 2.10 |
| 2010m12 | 630 | 627 | 367 | 95 | 52 | 7361 | 41 | 1.97 |
| 2011m6 | 643 | 633 | 359 | 93 | 49 | 7098 | 43 | 1.91 |
| 2011m12 | 628 | 624 | 352 | 91 | 48 | 6606 | 35.7 | 1.87 |
| 2012m6 | 628 | 369 | 343 | 90 | 46 | 6332 | 33.3 | 1.78 |
| 2012m12 | 606 | 344 | 325 | 92 | 46 | 5521 | 37.5 | 2.76 |
| 2013m6 | 618 | 331 | 317 | 97 | 46 | 5072 | 39.3 | 2.80 |
| 2013m12 | 622 | 364 | 322 | 117 | 44 | 5248 | 46.9 | 2.59 |
| 2014m6 | 649 | 375 | 326 | 113 | 43 | 5092 | 47.5 | 2.68 |
| 2014m12 | 647 | 401 | 329 | 136 | 51 | 5811 | 50.1 | 2.89 |
| 2015m6 | 659 | 395 | 333 | 135 | 50 | 5560 | 50.8 | 2.92 |
| 2015m12 | 646 | 384 | 323 | 133 | 48 | 5107 | 45.8 | 3.02 |

Panel B: Trading Activity

| Sample | Trades (SH) | Trade size \$k | Prob (Trade) | Prob (Sell Trade) | Prob (Buy Trade) | N |
|--------|-------------|-------------------|-----------------|----------------------|---------------------|------------|
| Full | 0.08 | 17.80 | 2.52 | 1.19 | 1.33 | 14,696,963 |
| Trades | 3.18 | 750.56 | 100.00 | 47.10 | 52.90 | 369,852 |

Table 2
The Building Blocks of Stewardship – Fund Managers, Governance Specialists, Internal Analysts, Shareholder Votes

This table reports summary statistics for the frequency of fund manager meetings in Panel A and governance specialist meetings in Panel B with portfolio companies' directors and managers. Panel C shows the number of revisions in recommendations by internal analysts. Panel D shows how the asset manager voted on management proposals, including votes against and abstentions.

Panel A: Frequency of Fund Manager and Governance Specialist Meetings

| Year | Fund Managers (FM) | | Governance Specialists (GS) | | Joint (FM+GS) | |
|------|--------------------|----------|-----------------------------|----------|---------------|----------|
| | Companies | Meetings | Companies | Meetings | Companies | Meetings |
| 2007 | 282 | 537 | 202 | 444 | 15 | 15 |
| 2008 | 276 | 521 | 194 | 473 | 14 | 17 |
| 2009 | 269 | 554 | 183 | 451 | 14 | 14 |
| 2010 | 271 | 539 | 174 | 390 | 13 | 14 |
| 2011 | 284 | 590 | 191 | 505 | 14 | 17 |
| 2012 | 286 | 573 | 191 | 500 | 17 | 21 |
| 2013 | 272 | 550 | 182 | 458 | 11 | 13 |
| 2014 | 269 | 507 | 188 | 576 | 10 | 11 |
| 2015 | 271 | 526 | 179 | 549 | 16 | 20 |

Panel B: Characteristics of Fund Manager and Governance Specialist Meetings

| Year | Fund Manager Meetings | | | | | Governance Specialist Meetings | | | |
|------|-------------------------|------------------------------|------|-------|------|--------------------------------|---------------------------------|--------------------------------|--------|
| | Desk members (Total) | % of meetings attended by... | | | | Desk members (Total) | Workload (firms/desk member) | % of meetings with focus on... | |
| | | CEO | CFO | Chair | Any | | | "Board" | "Comp" |
| 2007 | 41 | 0.59 | 0.52 | 0.06 | 0.73 | 10 | 31.8 | 0.13 | 0.00 |
| 2008 | 46 | 0.53 | 0.49 | 0.04 | 0.67 | 8 | 36.5 | 0.30 | 0.15 |
| 2009 | 50 | 0.53 | 0.48 | 0.04 | 0.65 | 11 | 24.5 | 0.50 | 0.29 |
| 2010 | 50 | 0.55 | 0.54 | 0.04 | 0.70 | 10 | 25.6 | 0.47 | 0.32 |
| 2011 | 54 | 0.56 | 0.49 | 0.05 | 0.70 | 11 | 25.5 | 0.43 | 0.30 |
| 2012 | 61 | 0.55 | 0.48 | 0.05 | 0.69 | 13 | 20.5 | 0.51 | 0.33 |
| 2013 | 52 | 0.52 | 0.41 | 0.02 | 0.62 | 12 | 21.4 | 0.52 | 0.28 |
| 2014 | 30 | 0.54 | 0.40 | 0.02 | 0.65 | 16 | 17.4 | 0.59 | 0.25 |
| 2015 | 26 | 0.51 | 0.36 | 0.02 | 0.61 | 15 | 17.4 | 0.51 | 0.23 |

Panel C: Internal Analyst Signals

| Year | Total stocks | Changes - Sell Signals | | | | Changes - Buy Signals | | | |
|------|-----------------|------------------------|----------------|-----------------|-------------|-----------------------|----------------|----------------|------------|
| | | Buy to Hold | Buy to Sell | Hold to Sell | Any Sell | Sell to Hold | Sell to Buy | Hold to Buy | Any Buy |
| 2007 | 343 | 81 | 15 | 40 | 136 | 52 | 4 | 76 | 132 |
| 2008 | 349 | 100 | 24 | 87 | 211 | 66 | 12 | 98 | 176 |
| 2009 | 344 | 107 | 12 | 71 | 190 | 87 | 17 | 109 | 213 |
| 2010 | 353 | 96 | 6 | 53 | 155 | 53 | 8 | 95 | 156 |
| 2011 | 357 | 108 | 6 | 68 | 182 | 47 | 11 | 85 | 143 |
| 2012 | 352 | 88 | 11 | 72 | 171 | 57 | 6 | 86 | 149 |
| 2013 | 356 | 68 | 4 | 56 | 128 | 52 | 6 | 54 | 112 |
| 2014 | 364 | 66 | 6 | 56 | 128 | 40 | 6 | 55 | 101 |
| 2015 | 372 | 47 | 2 | 17 | 66 | 23 | 6 | 38 | 67 |

Panel D: Shareholder Votes

| Year | Number of meetings voted | % of meetings where SLI cast a vote on at least one management proposal | | |
|------|-----------------------------|---|-----------|------------------|
| | | Vote against | Abstained | Any Disagreement |
| 2007 | 766 | 6.8 | 10.1 | 13.4 |
| 2008 | 764 | 5.9 | 9.8 | 12.7 |
| 2009 | 487 | 14.0 | 17.9 | 27.9 |
| 2010 | 452 | 8.4 | 11.7 | 18.6 |
| 2011 | 442 | 11.1 | 14.0 | 21.7 |
| 2012 | 418 | 20.8 | 12.0 | 28.7 |
| 2013 | 392 | 13.5 | 11.0 | 23.0 |
| 2014 | 433 | 10.9 | 15.7 | 24.7 |
| 2015 | 445 | 9.9 | 14.2 | 22.0 |

Table 3
Monitoring and Trading

The table reports pooled (unbalanced) panel regressions that relate measures of daily trading activity to meetings held between portfolio companies, and governance specialists or fund managers. The sample includes all fund-level positions during the 2007-2015 sample period; positions without at least one fund manager meeting, at least one governance specialist meeting and without a trade by any fund during the sample period are excluded from the sample. In Panel A, in columns (1)-(3) the dependent variable is the daily net percentage change in the number of shares held in the portfolio company per fund; in columns (4) and (5) the dependent variable is a dummy variable indicating whether (1) or not (0) a sell trade (5) or buy trade (6) is made on day t . Governance Specialist Meeting indicates a meeting with a governance specialist on day t ; Fund Manager Meeting indicates a fund manager meeting on day t . In Panel B, Warning (1/0) indicates a portfolio firm is on the internal warning list for weak governance; GS (FM) Meeting indicate the [-1,+1] day window and the [+2,+5] day window around a meeting with a governance specialist (fund manager), respectively. In both panels, Sample Trades restricts the sample to only those 270,700 daily observations with non-zero trading activity. Estimates include stock, fund, and trading day fixed effects as indicated. Control variables are as indicated and include: Ln(Shrout) as the natural log of the number of shares outstanding; Stake Held is the aggregate percentage stake held across all funds; Day Return is the daily stock return. Standard errors are clustered at the fund level. t-statistics are shown below the estimates, and 1%, 5%, and 10% statistical significance are indicated with ***, **, and *, respectively.

Panel A: Governance Specialist and Fund Manager Meetings with Portfolio Firms

| | (1) | (2) | (3) | (4) | (5) |
|-------------------------|-----------------------|------------------------|----------------------|----------------------|-----------------------|
| | Trades | Trades | Trades | P(Sell Trade) | P(Buy Trade) |
| Gov. Specialist Meeting | -0.118*** [0.0155] | -0.114*** [0.0150] | -4.204*** [0.633] | 0.361*** [0.0571] | -0.474*** [0.0477] |
| Fund Mgr (FM) Meeting | 0.139*** [0.0246] | 0.139*** [0.0255] | 3.109*** [0.621] | 0.146*** [0.0404] | 0.997*** [0.133] |
| Ln(Shrout) | | 0.0369*** [0.00633] | 1.383*** [0.264] | -0.0550* [0.0284] | -0.117*** [0.0365] |
| Stake Held | | 4.798*** [1.458] | 84.36** [41.32] | -7.597 [7.079] | 29.60*** [8.130] |
| Day Return | | 3.737*** [0.401] | 77.80*** [5.673] | -8.648*** [0.851] | 12.16*** [1.246] |
| Sample | Full | Full | Trades | Full | Full |
| Observations | 11,217,617 | 11,217,617 | 270,700 | 11,232,488 | 11,232,488 |
| FE | None | Stock, Fund, Day | Stock, Fund, Day | Stock, Fund, Day | Stock, Fund, Day |

Panel B: Firms on the Warning List, Longer Trading Windows

| | (1) Trades | (2) Trades | (3) Trades | (4) Trades |
|-------------------------|-------------------------|-------------------------|----------------------|----------------------|
| Gov. Spec. (GS) Meeting | -0.115*** [0.0155] | -0.112*** [0.0150] | | |
| Fund Mgr (FM) Meeting | 0.164*** [0.0285] | 0.167*** [0.0293] | | |
| Warning | -0.0228*** [0.00371] | -0.0334*** [0.00830] | | |
| (FM Meeting)x(Warning) | -0.127*** [0.0374] | -0.142*** [0.0388] | | |
| GS Meeting [-1,+1] | | | -4.397*** [0.433] | -3.041*** [0.493] |
| GS Meeting [+2,+5] | | | -2.699*** [0.417] | -1.404*** [0.424] |
| FM Meeting [-1,+1] | | | 3.015*** [0.331] | 2.935*** [0.343] |
| FM Meeting [+2,+5] | | | 2.198*** [0.312] | 2.090*** [0.357] |
| Observations | 11,217,617 | 11,217,617 | 270,700 | 270,700 |
| Sample | Full | Full | Trades | Trades |
| Controls | No | Yes | No | Yes |
| FE | None | Stock, Fund, Day | None | Stock, Fund, Day |

Table 4
Analyst Recommendation Changes and Trading

The table reports pooled (unbalanced) panel regressions that relate measures of daily trading activity to analyst recommendation changes. The sample includes all fund-level positions during the 2007-2015 sample period; positions without at least one analyst recommendation change and without a trade by any fund during the sample period are excluded from the sample. In Panel A, the dependent variable in columns (1)-(4) is the daily net percentage change in the number of shares held in the portfolio company per fund; in columns (5) and (6) the dependent variable is a dummy variable indicating whether (1) or not (0) a sell trade (5) or buy trade (6) is made on day t . Sell Signal indicates any downgrade of the stock (“Buy” to “Hold”, “Buy” to “Sell”, “Hold” to “Sell”) on day t ; Buy Signal [0] indicates any upgrade of the stock (“Sell” to “Hold”, “Sell” to “Buy”, “Hold” to “Buy”) on day t . Sell (Buy) Signal [...] indicate the [-1,+1] day window and the [+2,+5] day window around a Sell (Buy) Signal, respectively. In both panels, Sample Trades restricts the sample to only those 270,700 daily observations with non-zero trading activity. In Panel B, the dependent variable in all columns is the daily net percentage change in the number of shares held in the portfolio company per fund (SH). Prior GS Meeting indicates whether (1) or not (0) a meeting with a governance specialist has taken place prior to the analyst recommendation changes during a specific window of relative trading days. The window is as indicated in the column title. To illustrate, in column (1) Prior GS Meeting indicates that a governance specialist meeting takes place within 1 to 5 trading days prior to the recommendation change. Estimates include stock, fund, and trading day fixed effects as indicated. Control variables are as indicated and include: Ln(Shrout) as the natural log of the number of shares outstanding; Stake Held is the aggregate percentage stake held across all funds; Day Return is the daily stock return. Standard errors are clustered at the fund level. t-statistics are shown below the estimates, and 1%, 5%, and 10% statistical significance are indicated with ***, **, and *, respectively.

Panel A: Recommendation Changes

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---------------------|----------------------|------------------------|----------------------|----------------------|-----------------------|-----------------------|
| | Trades | Trades | Trades | Trades | P(Sell Trade) | P(Buy Trade) |
| Sell Signal [0] | -1.983*** [0.159] | -1.933*** [0.153] | -17.15*** [0.723] | | 10.05*** [0.758] | -0.563*** [0.0634] |
| Buy Signal [0] | 1.319*** [0.149] | 1.306*** [0.149] | 16.50*** [1.075] | | 0.278** [0.109] | 6.233*** [0.519] |
| Sell Signal [-1,+1] | | | | -17.73*** [0.592] | | |
| Sell Signal [+2,+5] | | | | -17.35*** [0.691] | | |
| Buy Signal [-1,+1] | | | | 20.64*** [0.797] | | |
| Buy Signal [+2,+5] | | | | 13.04*** [0.821] | | |
| Log(Shrout) | | 0.0449*** [0.00852] | 1.800*** [0.311] | 1.741*** [0.306] | -0.119*** [0.0253] | -0.0539 [0.0347] |
| Stake Held | | 8.047*** [2.020] | 153.6*** [51.36] | 156.3*** [51.60] | -7.795 [8.806] | 39.38*** [11.31] |
| Day Return | | 3.364*** [0.398] | 72.29*** [6.096] | 65.03*** [5.745] | -8.301*** [0.866] | 11.66*** [1.263] |
| Sample | Full | Full | Trades | Trades | Full | Full |
| Observations | 11,286,586 | 11,286,586 | 274,237 | 274,237 | 11,302,427 | 11,302,427 |
| FE | None | Stock, Fund, Day | Stock, Fund, Day | Stock, Fund, Day | Stock, Fund, Day | Stock, Fund, Day |

Panel B: Recommendation Changes and Recent Governance Specialist Meetings

| | (1) Prior GS [1, 5] | (2) Prior GS [6, 10] | (3) Prior GS [11, 15] | (4) Prior GS [16, 20] |
|--------------------------------|---------------------------|----------------------------|-----------------------------|-----------------------------|
| Sell Signal | -1.911*** [0.154] | -1.892*** [0.150] | -1.945*** [0.158] | -1.901*** [0.156] |
| Buy Signal | 1.279*** [0.148] | 1.305*** [0.152] | 1.316*** [0.152] | 1.340*** [0.154] |
| Prior GS Meeting | -0.0853*** [0.0105] | -0.123*** [0.0110] | -0.156*** [0.00913] | -0.0984*** [0.00627] |
| Sell Signal x Prior GS Meeting | -1.289** [0.499] | -3.156*** [0.444] | 0.318 [0.327] | -0.483 [0.389] |
| Buy Signal x Prior GS Meeting | 1.413* [0.842] | 0.0447 [0.606] | -0.547** [0.247] | -1.136*** [0.174] |
| Observations | 11,286,586 | 11,286,586 | 11,286,586 | 11,286,586 |
| Sample | Full | Full | Full | Full |
| Controls | Yes | Yes | Yes | Yes |
| FE | Stock, Fund, Day | Stock, Fund, Day | Stock, Fund, Day | Stock, Fund, Day |

Table 5
Trading Incidence For Sell and Buy Signals

The table reports event-time trading activity around internal analyst recommendation changes. Sell Signal (1/0) indicates any downgrade of the stock (“Buy” to “Hold”, “Buy” to “Sell”, “Hold” to “Sell”); Buy Signal (1/0) indicates any upgrade of the stock (“Sell” to “Hold”, “Sell” to “Buy”, “Hold” to “Buy”). The table reports aggregate net trade incidence for fund-stock positions owned during the -1 to +5 day window around the internal publication date of the recommendation change. Fund Manager-Analysts includes all positions held where the fund manager holding the position is at the same time the Analyst issuing the recommendation change.

| | Sell Signal | | Buy Signal | |
|-------------|---------------------------------|---|---------------------------------|---|
| | All Fund Managers [N=26,673] | Fund Manager-Analysts only [N=1,826] | All Fund Managers [N=21,779] | Fund Manager-Analysts only [N=1,496] |
| No trade | 75.3 | 58.5 | 80.3 | 61.4 |
| Net buyers | 5.3 | 6.0 | 14.5 | 32.1 |
| Net sellers | 19.4 | 35.4 | 5.2 | 6.5 |

Table 6
Analyst Recommendation Changes and Performance

The table reports performance metrics around analyst recommendation changes. Panel A shows performance in response to trading, split between Sell Trades—net sell trades around Sell Signals, and Buy Trades—net buy trades around Buy Signals. Sell Signal (1/0) indicates any downgrade of the stock (“Buy” to “Hold”, “Buy” to “Sell”, “Hold” to “Sell”); Buy Signal (1/0) indicates any upgrade of the stock (“Sell” to “Hold”, “Sell” to “Buy”, “Hold” to “Buy”). Initial Position is the average \$ amount held on day t-1; Return as if passive indicates the return incurred by positions during -1 to +5 days if no trading had occurred; AR indicates the -1 to +5 abnormal return due to active trading, net of passive returns and net of trade flows, where fast assumes that intra-day trades all occur at opening prices and slow assumes closing prices. Panel B compares as if passive returns and abnormal returns due to active trading, using fast trading assumptions, for alternative window lengths around the recommendation change. Panel C reports abnormal returns due to active trading split by firm size (market cap) and stake size (dollar amount held). Abnormal returns reported are averages of these size quintiles. Panel D reports as if passive returns split into whether no fund holding the specific stock trades or at least one fund trades. In all panels, EW indicates equal-weighted, VW indicates value-weighted (market cap on the day of the recommendation change) returns. Standard errors are in brackets. 1%, 5%, and 10% statistical significance is indicated with ***, **, and *, respectively.

Panel A: Trading performance, [-1,+5] trading days, value-weighted and equal-weighted

| Initial Position \$k | Return as if passive | | AR, fast trading | | AR, slow trading | |
|---|----------------------|----------|------------------|---------|------------------|---------|
| | VW | EW | VW | EW | VW | EW |
| Sell Trades (net sell trades around Sell Signals, $N=4,985$) | | | | | | |
| 10,927 | -3.51*** | -4.95*** | 0.36*** | 0.83*** | 0.27*** | 0.40*** |
| [558] | [0.13] | [0.13] | [0.035] | [0.044] | [0.040] | [0.030] |
| Buy Trades (net buy trades around Buy Signals, $N=2,634$) | | | | | | |
| 9,377 | 0.22 | 0.92*** | 0.40*** | 2.06*** | 0.37*** | 1.31*** |
| [761] | [0.18] | [0.20] | [0.13] | [0.32] | [0.099] | [0.27] |

Panel B: Trading performance, alternative windows, value-weighted

| Passive [-1,+1] | AR fast [-1,+1] | Passive [-1,+5] | AR fast [-1,+5] | Passive [-1,+10] | AR fast [-1,+10] | Passive [-1,+20] | AR fast [-1,+20] |
|--|--------------------|--------------------|--------------------|---------------------|---------------------|---------------------|---------------------|
| VW Sell Trades (net sell trades around Sell Signals, $N=4,985$) | | | | | | | |
| -2.87*** | 0.23*** | -3.50*** | 0.36*** | -5.00*** | 2.43*** | -6.29*** | 7.58*** |
| [0.15] | [0.045] | [0.13] | [0.035] | [0.17] | [0.29] | [0.27] | [0.84] |
| VW Buy Trades (net buy trades around Buy Signals, $N=2,634$) | | | | | | | |
| 1.12*** | 0.23*** | 0.20 | 0.40*** | -0.43* | 1.14*** | -0.77** | 5.04*** |
| [0.16] | [0.045] | [0.18] | [0.13] | [0.23] | [0.42] | [0.34] | [1.30] |

Panel C: Trading performance by firm and stake size, [-1,+5] trading days, value-weighted

| | 1 (Smallest) | 2 | 3 | 4 | 5 (Largest) | 1 (Smallest) | 2 | 3 | 4 | 5 (Largest) |
|---------|----------------------------|--------------------|--------------------|--------------------|--------------------|-------------------|-------------------|-------------------|-------------------|---------------------|
| | Sell Trades | | | | | Buy Trades | | | | |
| | Firm size (market cap) | | | | | | | | | |
| AR fast | 2.10*** [0.21] | 0.66*** [0.078] | 1.14*** [0.076] | 0.23*** [0.075] | 0.37*** [0.048] | 2.66** [1.30] | 4.24*** [0.98] | 0.58 [0.61] | 4.09*** [0.73] | -0.21** [0.099] |
| AR slow | 0.80*** [0.10] | 0.43*** [0.067] | 0.64*** [0.057] | 0.018 [0.066] | 0.25*** [0.053] | 0.39 [0.97] | 3.13*** [0.95] | -1.07** [0.44] | 4.10*** [0.62] | -0.17*** [0.062] |
| | Stake size (dollar amount) | | | | | | | | | |
| AR fast | 1.97*** [0.21] | 1.09*** [0.13] | 0.74*** [0.083] | 0.64*** [0.081] | 0.38*** [0.049] | 5.30*** [1.32] | 3.30*** [0.85] | 1.33** [0.53] | 1.33** [0.53] | 0.085 [0.24] |
| AR slow | 1.09*** [0.15] | 0.58*** [0.082] | 0.28*** [0.057] | 0.31*** [0.055] | 0.16*** [0.034] | 2.21** [1.05] | 1.61** [0.66] | 1.33*** [0.42] | 1.72*** [0.53] | 0.12 [0.29] |

Panel D: Returns as if passive around recommendation changes with and without trades, [-1,+5] trading days, value-weighted and equal-weighted

| Sell Trades | | | | Buy Trades | | | |
|----------------------------------|--------------------|--|--------------------|----------------------------------|------------------|--|----------------|
| EW | VW | EW | VW | EW | VW | EW | VW |
| No fund trades (N=793 events) | | At least one fund trades (N=715 events) | | No fund trades (N=911 events) | | At least one fund trades (N=483 events) | |
| -1.66*** [0.31] | -1.12*** [0.29] | -3.44*** [0.35] | -2.19*** [0.38] | 0.71** [0.30] | 0.75** [0.32] | 1.51*** [0.45] | 0.45 [0.50] |

Table 7
Meetings with Portfolio Firms and Performance

The table reports performance metrics around analyst recommendation changes with and without coinciding meetings of fund managers and governance specialist with portfolio firms. No Meeting indicates that no representatives of the asset manager meet with the portfolio firm during 25 trading days preceding the recommendation change. Meeting indicates a fund manager or governance specialist meeting with the portfolio firm during that same window. The sample is split between Buy Trades—net buy trades around Buy Signals—and Sell Trades—net sell trades around Sell Signals. Buy Signal (1/0) indicates any upgrade of the stock (“Sell” to “Hold”, “Sell” to “Buy”, “Hold” to “Buy”); Sell Signal (1/0) indicates any downgrade of the stock (“Buy” to “Hold”, “Buy” to “Sell”, “Hold” to “Sell”). There are 148 unique sell signals and 134 buy signals that coincide with a fund manager meeting, and 33 unique sell signals and 26 buy signals that coincide with a governance specialist meeting. Initial Position is the average \$ amount held on day t-1; AR indicates the -1 to +5 abnormal return due to active trading, net of passive returns and net of trade flows, where fast assumes that intra-day trades all occur at opening prices and slow assumes closing prices. Standard errors are in brackets. 1%, 5%, and 10% statistical significance is indicated with ***, **, and *, respectively.

| | (1) Initial Position No Meeting | (2) Position \$k Meeting | Diff | (3) AR fast No Meeting | (4) AR fast Meeting | Diff | (5) AR slow No Meeting | (6) AR slow Meeting | Diff |
|-------------|---------------------------------------|--------------------------------|---------------|------------------------------|---------------------------|--------------------|------------------------------|---------------------------|--------------------|
| Sell Trades | 7,809*** [350] | 7,465*** [447] | -345 [568] | 0.39*** [0.034] | 0.89*** [0.053] | 0.50*** [0.062] | 0.12*** [0.026] | 0.71*** [0.042] | 0.60*** [0.050] |
| <i>N</i> | 2,274 | 1,265 | 3,539 | 2,274 | 1,265 | 3,539 | 2,274 | 1,265 | 3,539 |
| Buy Trades | 6,473*** [425] | 5,650*** [528] | -823 [678] | 0.17** [0.068] | 0.78*** [0.10] | 0.61*** [0.12] | -0.20*** [0.051] | 0.50*** [0.080] | 0.70*** [0.095] |
| <i>N</i> | 1,207 | 774 | 1,981 | 1,207 | 774 | 1,981 | 1,207 | 774 | 1,981 |

Table 8
Shareholder Votes

The table reports pooled (unbalanced) panel regressions that relate measures of daily trading activity to shareholder votes. The sample includes all fund-level positions during the 2007-2015 sample period; positions without at least one shareholder vote and without a trade by any fund during the sample period are excluded from the sample. The dependent variable in columns (1)-(4) is the daily net percentage change in the number of shares held in the portfolio company per fund; in columns (5) and (6) the dependent variable is a dummy variable indicating whether (1) or not (0) a sell trade (5) or buy trade (6) is made on day t . ShVote indicates a shareholder vote takes place on day t ; VoteAgainst indicates whether (1) or not (0) the asset manager votes against at least one management proposal at the vote; ShVote/VoteAgainst [...] indicate the [-1 to +1] day window and the [+2 to +5] day window around a shareholder vote. Trades restricts the sample to only those daily observations with non-zero trading activity. Estimates include stock, fund, and trading day fixed effects as indicated. Control variables are as indicated and include: Ln(Shrout) as the natural log of the number of shares outstanding; Stake Held is the aggregate percentage stake held across all funds; Day Return is the daily stock return. Standard errors are clustered at the fund level. t-statistics are shown below the estimates, and 1%, 5%, and 10% statistical significance are indicated with ***, **, and *, respectively.

| | (1) | (2) | (3) | (4) | (5) | (6) |
|------------------------|-----------------------|------------------------|----------------------|----------------------|----------------------|------------------------|
| | Trades | Trades | Trades | Trades | P(Sell Trade) | P(Buy Trade) |
| ShVote | 0.303*** [0.0386] | 0.312*** [0.0391] | 8.745*** [1.018] | | 0.191*** [0.0576] | 0.855*** [0.0871] |
| ShVote [-1 to +1] | | | | 1.778*** [0.631] | | |
| ShVote [+2 to +5] | | | | -2.308*** [0.501] | | |
| VoteAgainst | -0.447*** [0.0523] | -0.443*** [0.0512] | -11.24*** [1.837] | | -0.0181 [0.123] | -1.037*** [0.146] |
| VoteAgainst [-1 to +1] | | | | -1.925** [0.964] | | |
| VoteAgainst [+2 to +5] | | | | -3.638*** [0.949] | | |
| Log(Shrout) | | 0.0431*** [0.00727] | 1.777*** [0.330] | 1.741*** [0.332] | -0.0152 [0.0227] | -0.0880*** [0.0314] |
| Stake Held | | 4.130*** [1.226] | 103.5** [40.99] | 103.9** [40.96] | -8.950* [5.069] | 18.08*** [6.952] |
| Day Return | | 3.384*** [0.416] | 73.87*** [5.193] | 73.80*** [5.200] | -8.368*** [0.976] | 10.95*** [1.312] |
| Sample | Full | Full | Trades | Full | Full | Full |
| Observations | 11,217,617 | 11,217,617 | 325,146 | 325,146 | 11,232,488 | 11,232,488 |
| FE | None | Stock, Fund, Day | Stock, Fund, Day | Stock, Fund, Day | Stock, Fund, Day | Stock, Fund, Day |

Figure 1
Active Share

The figure shows active share and annual turnover for funds managed by the UK equities desk. Active share represents a fund manager's deviation from the fund's benchmark and is calculated as in Cremers and Petajisto (2009), at daily frequency, using FTSE All Share Index weights. Grey circles indicate a subsample of larger funds whose holdings are included in all internal analyst reports. Active share and annual turnover are averaged for the entire duration for which each fund is included in the sample.

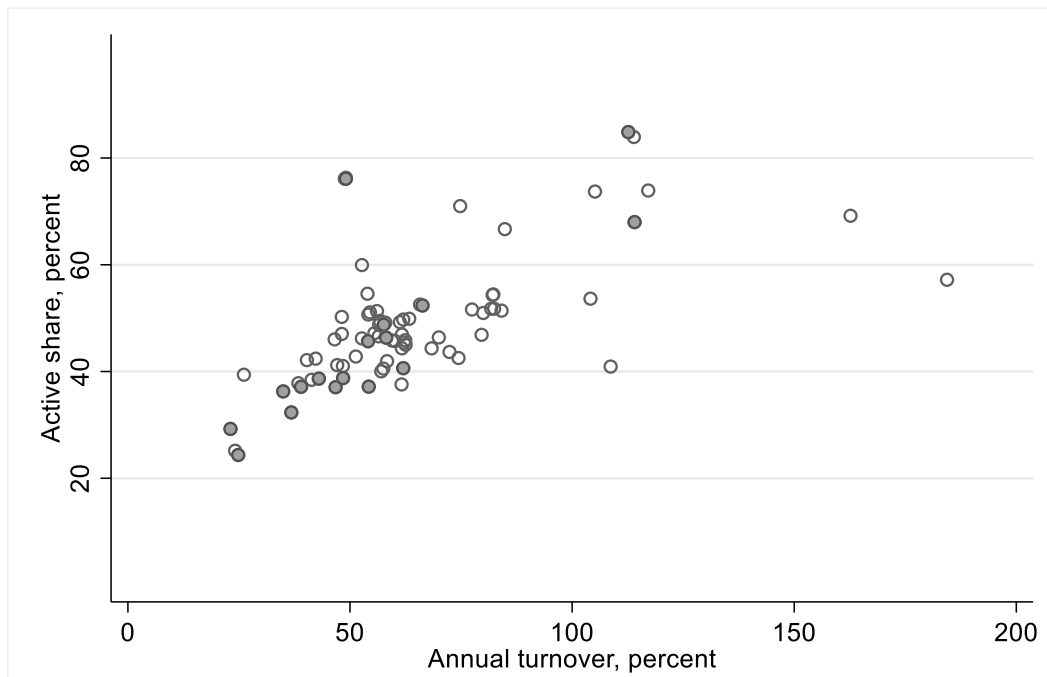


Figure 2
The Asset Manager's Internal Organization

The figure illustrates the stylized activities and roles of the equities desk of the Asset Manager. The equities desk consists of 1) fund managers, 2) internal analysts, and 3) governance specialists, the latter group includes a vote manager. Fund managers trade individual stocks within fund mandates. Contacts between the equities desk and portfolio firms and the subsequent information flow within the asset manager occur as follows: Fund managers meet with portfolio companies, in the majority of cases with the CEO; fund managers and other asset manager staff can participate; Analysts provide fund managers with industry reports and occasional company reports; they issue buy, hold or sell recommendations throughout the year; governance specialists engage with portfolio firms through in person meetings, phone calls, emails, and letters; governance specialists provide governance analysis to fund managers in the form of memos, e-mails and updates of the internal warning list; in addition to all previously noted interactions, there are weekly scheduled meetings and ad-hoc meetings between the desk members. The diagram also shows the total number of individuals in each group. Roles are defined cumulatively over the entire sample period for each individual, individuals with multiple roles can hold them simultaneously or sequentially.

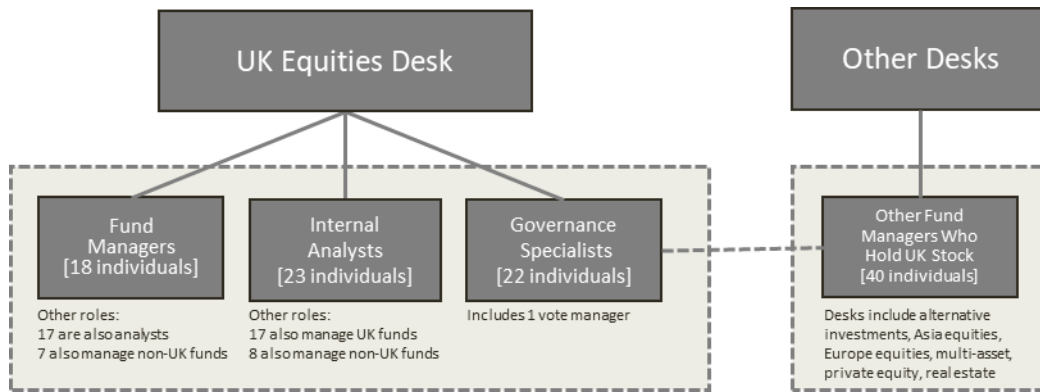


Figure 3
Events and Signals in the Data – Example Vodafone

The figure provides an aggregate view of daily private data based on one of the larger stocks in our sample, Vodafone. The stock is held by multiple funds during the entire sample period, from 2007 to 2015. The first part of the figure shows signals and events in the data, in several data clusters. Data cluster (1) shows fund managers' personal meetings with the firm. The meetings usually involve the CEO and the CFO. The next data cluster (2) shows the frequency with which governance specialists conduct personal meetings with the firm and the status of Vodafone on the warning list. The meetings of governance specialists with Vodafone involve non-executive board members, including the Chair; the governance specialists further engage throughout the year outside of personal meetings, through phone calls, emails, and letters. The solid black line indicates a time period during which Vodafone is on the internal warning list for weak governance. The next data clusters show (3) the asset manager's voting behavior at annual and extraordinary meetings, and (4) analyst "Buy", "Hold", and "Sell" recommendations over time. To illustrate the dynamics of the events and signals in the data, consider early 2011, when Vodafone is downgraded from "Buy" to "Hold" and in mid-2011 to "Sell". During this time, fund managers meet with Vodafone more frequently and three meetings following the downgrade involve the Chairman. The governance specialists have fewer contacts during this period, but engage more frequently in 2007-2008 when Vodafone is on the warning list. The governance specialists also engage with higher intensity before a negative vote on a reappointment of a director and on remuneration in mid-2009. Governance specialist engagements between 2013 and 2016 are dominated by remuneration issues. The second part of the figure shows the aggregate daily trading activity in the stock by type of trading day, across all funds, indexed to normal trading days as 100%.

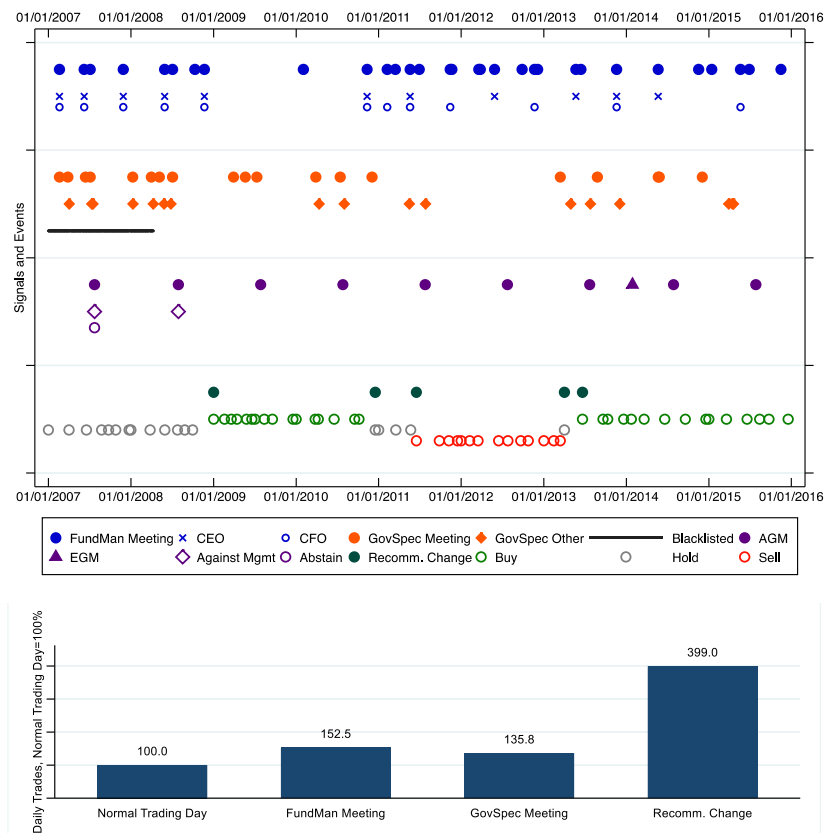


Figure 4
Votes cast and trading around shareholder meetings

The figure shows trading activity around shareholder votes. The All Positions sample includes all fund-stock positions owned during the -25 to +25 day window around the date of the shareholder vote. The Only Trades sample includes only those positions that trade at least once during this same window. In both samples, positions not held for the full 51 days are excluded. No Disagreement indicates shareholder meetings where the asset manager votes in favor of all management proposals; Abstain indicates shareholder meetings with at least one abstention on a management proposal; Vote Against indicates shareholder meetings with at least one vote against.



Figure 5
Engagement Around Shareholder Votes

The figure shows engagement activity by governance specialists around shareholder votes. The sample are all fund-stock positions owned during the -25 to +25 day window around the date of the shareholder vote. Positions not held for the full 51 days are excluded. No Disagreement indicates shareholder meetings where the asset manager votes in favor of all management proposals or abstains from voting at that meeting; Vote against indicates shareholder meetings with at least one vote against. Number Of Issues Discussed indicates the number of topics discussed with the target firm, per day; Number Of Contacts indicates the number of unique contacts with the target firm per day; Negative tone share is the total number of negative words in the meeting notes written by governance specialists divided by the total number of positive and negative words in those notes, per day. Negative and positive words are based on the dictionary provided by Loughran and McDonald (2011). The dashed lines plot the 95 percent confidence intervals for daily averages.

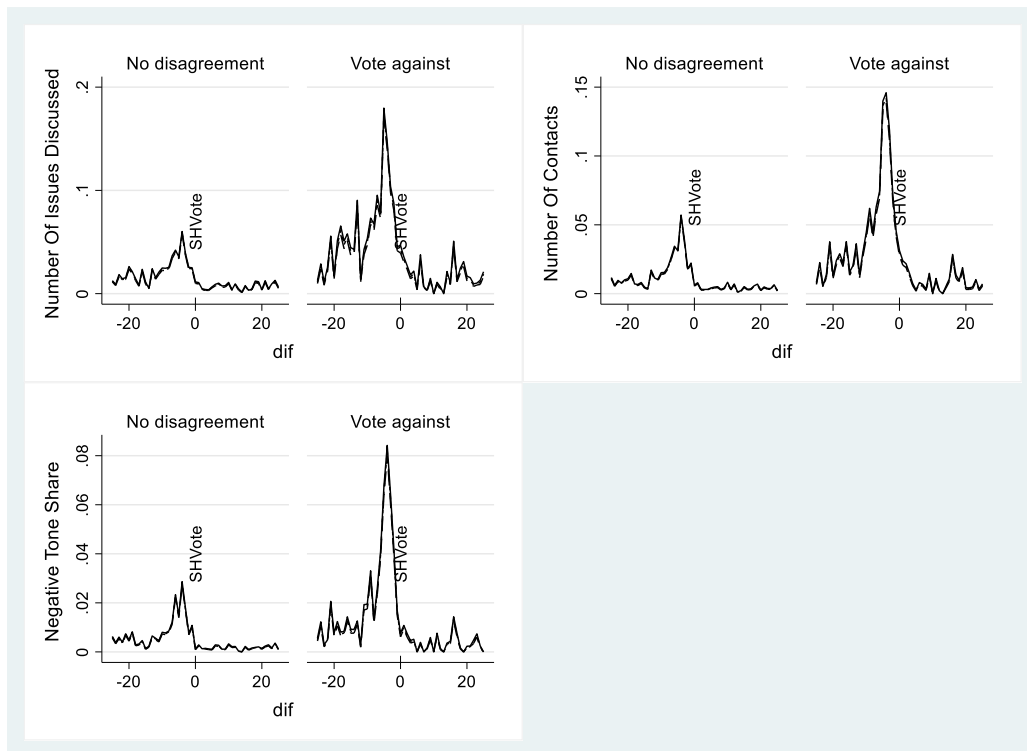
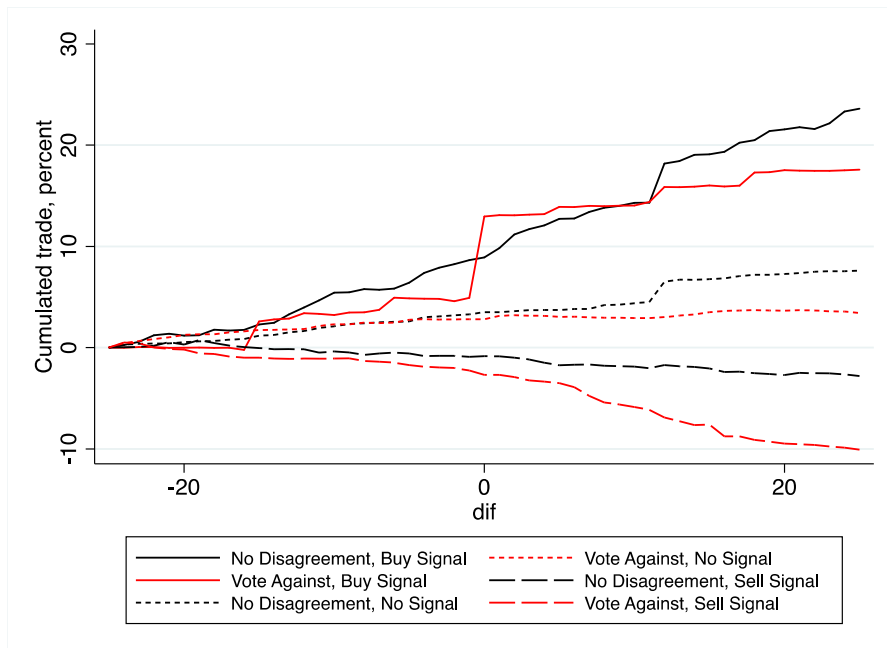


Figure 6
Analyst signals, votes cast and trading

The figure shows analyst recommendation changes, votes cast, and trading activity around shareholder votes. The sample includes all fund-stock positions owned during the -25 to +25 day window around the date of the shareholder vote. Positions not held for the full 51 days are excluded. No Disagreement indicates shareholder meetings where the asset manager votes in favor of all management proposals; Vote Against indicates shareholder meetings with at least one vote against. Buy Signal indicates any upgrade of the stock (“Sell” to “Hold”, “Sell” to “Buy”, “Hold” to “Buy”) during the sample window; Sell Signal (1/0) indicates any downgrade of the stock (“Buy” to “Hold”, “Buy” to “Sell”, “Hold” to “Sell”).



INTERNET APPENDIX

The Benefits of Access: Evidence from Private Meetings with Portfolio Firms

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Table A1
50 Largest Asset Managers Worldwide

This table reports characteristics of large asset managers. Assets under management (AUM) are from P&I/Willis Tower Watson (2016) and represent data as of year-end 2015; other data are hand collected from industry and company publications.

| Rank | Asset manager | AUM (\$ bn) | Publicly traded | Home market | Operations outside home mkt | Centralized stewardship |
|------|--|-------------|-----------------|-------------|--------------------------------|----------------------------|
| 1 | BlackRock | 4,645 | yes | USA | yes | yes |
| 2 | Vanguard Group | 3,399 | no | USA | yes | yes |
| 3 | State Street Global | 2,245 | yes | USA | yes | yes |
| 4 | Fidelity Investments | 2,036 | no | USA | yes | yes |
| 5 | Allianz Group | 1,926 | yes | DEU | yes | yes |
| 6 | J.P. Morgan Chase | 1,723 | yes | USA | yes | NA |
| 7 | Bank of New York Mellon | 1,625 | yes | USA | yes | NA |
| 8 | AXA Group | 1,489 | yes | FRA | yes | yes |
| 9 | Capital Group | 1,390 | no | USA | yes | NA |
| 10 | Goldman Sachs Group | 1,252 | yes | USA | yes | yes |
| 11 | Deutsche Bank | 1,217 | yes | DEU | yes | yes |
| 12 | BNP Paribas | 1,196 | yes | FRA | yes | yes |
| 13 | Prudential Financial | 1,184 | yes | USA | yes | NA |
| 14 | UBS | 1,150 | yes | CHE | yes | yes |
| 15 | Legal & General Group | 1,106 | yes | GBR | no | yes |
| 16 | Amundi | 985 | yes | FRA | yes | yes |
| 17 | Wellington Mgmt. | 927 | no | USA | yes | yes |
| 18 | HSBC Holdings | 896 | yes | GBR | yes | yes |
| 19 | Wells Fargo | 890 | yes | USA | yes | NA |
| 20 | Northern Trust Asset Mgmt. | 875 | yes | USA | yes | yes |
| 21 | Natixis Global Asset Mgmt. | 870 | yes | FRA | yes | NA |
| 22 | TIAA | 854 | no | USA | yes | yes |
| 23 | <i>Standard Life Aberdeen (Merged)</i> | 806 | yes | GBR | yes | Yes |
| 24 | MetLife | 779 | yes | USA | yes | NA |
| 25 | Invesco | 776 | yes | USA | yes | yes |
| 26 | Aegon Group | 773 | yes | NLD | yes | yes |
| 27 | Franklin Templeton | 764 | yes | USA | yes | NA |
| 28 | T. Rowe Price | 763 | yes | USA | yes | NA |
| 29 | Prudential | 755 | yes | GBR | yes | NA |
| 30 | Morgan Stanley | 712 | yes | USA | yes | yes |
| 31 | Legg Mason | 672 | yes | USA | yes | no |
| 32 | Sun Life Financial | 643 | yes | CAN | yes | yes |
| 33 | MassMutual Financial | 642 | no | USA | yes | no |
| 34 | Sumitomo Mitsui Trust Hldgs. | 641 | yes | JPN | yes | yes |
| 35 | Ameriprise Financial | 629 | yes | USA | yes | NA |
| 36 | Affiliated Managers Group | 611 | yes | USA | yes | no |
| 37 | Nippon Life Insurance | 596 | no | JPN | yes | yes |
| 38 | Mitsubishi UFJ Financial Group | 594 | yes | JPN | yes | yes |
| 39 | Principal Financial | 527 | yes | USA | yes | no |
| 40 | New York Life Investments | 498 | no | USA | yes | NA |
| 41 | Old Mutual | 486 | yes | GBR | yes | yes |
| 42 | Generali Group | 471 | yes | ITA | yes | NA |
| 43 | Great-West Lifeco | 471 | yes | CAN | yes | NA |
| 44 | Schroders Investment Mgmt. | 462 | yes | GBR | yes | yes |
| 45 | <i>Aberdeen Asset Mgmt.</i> | 431 | yes | GBR | yes | yes |
| 46 | Aviva | 430 | yes | GBR | yes | yes |
| 47 | Crédit Suisse | 414 | yes | CHE | yes | NA |
| 48 | Royal Bank of Canada | 411 | yes | CAN | yes | yes |
| 49 | DZ Bank | 392 | no | DEU | yes | NA |
| 50 | Dimensional Fund Advisors | 388 | no | USA | yes | yes |
| 51 | <i>Standard Life</i> | 375 | yes | GBR | yes | yes |

Table A2

Analyst Recommendation Changes and Performance: Trading performance for alternative windows, equal and value-weighted, fast and slow trading assumptions

The table reports performance metrics around analyst recommendation changes as in Table 6, Panel B. Panel A shows Sell Trades—net sell trades around Sell Signals, and Panel B shows Buy Trades—net buy trades around Buy Signals. Sell Signal (1/0) indicates any downgrade of the stock (“Buy” to “Hold”, “Buy” to “Sell”, “Hold” to “Sell”); Buy Signal (1/0) indicates any upgrade of the stock (“Sell” to “Hold”, “Sell” to “Buy”, “Hold” to “Buy”). Return as if passive indicates the return incurred by positions if no trading had occurred; AR indicates the abnormal return due to active trading, net of passive returns and net of trade flows. Fast trading assumes that intra-day trades all occur at opening prices and slow trading assumes closing prices. Passive returns and abnormal returns are reported for alternative window lengths around the recommendation change. EW indicates equal-weighted, VW indicates value-weighted (market cap on the day of the recommendation change) returns. Standard errors are in brackets. 1%, 5%, and 10% statistical significance is indicated with ***, **, and *, respectively.

Panel A: Sell Trades (net sell trades around Sell Signals, N=4,985)

| Passive [-1,+1] | AR [-1,+1] | Passive [-1,+5] | AR [-1,+5] | Passive [-1,+10] | AR [-1,+10] | Passive [-1,+20] | AR [-1,+20] |
|--------------------|---------------------|--------------------|--------------------|---------------------|-------------------|---------------------|-------------------|
| VW, slow trading | | | | | | | |
| -2.87*** [0.15] | 0.21*** [0.026] | -3.50*** [0.13] | 0.36*** [0.035] | -5.00*** [0.17] | 2.43*** [0.29] | -6.29*** [0.27] | 7.53*** [0.84] |
| EW, fast trading | | | | | | | |
| -3.70*** [0.10] | 0.43*** [0.018] | -4.88*** [0.13] | 0.82*** [0.044] | -5.31*** [0.15] | 9.78*** [0.77] | -5.13*** [0.20] | 28.4*** [1.81] |
| EW, slow trading | | | | | | | |
| -3.70*** [0.10] | 0.11*** [0.0090] | -4.88*** [0.13] | 0.39*** [0.030] | -5.31*** [0.15] | 9.39*** [0.77] | -5.13*** [0.20] | 28.0*** [1.81] |

Panel B: Buy Trades (net buy trades around Buy Signals, N=2634)

| Passive [-1,+1] | AR [-1,+1] | Passive [-1,+5] | AR [-1,+5] | Passive [-1,+10] | AR [-1,+10] | Passive [-1,+20] | AR [-1,+20] |
|--------------------|---------------------|--------------------|-------------------|---------------------|-------------------|---------------------|-------------------|
| VW, slow trading | | | | | | | |
| 1.12*** [0.16] | 0.097*** [0.027] | 0.20 [0.18] | 0.40*** [0.13] | -0.43* [0.22] | 1.15*** [0.42] | -0.77** [0.34] | 5.06*** [1.30] |
| EW, fast trading | | | | | | | |
| 0.23 [0.18] | 0.24*** [0.045] | 0.95*** [0.20] | 2.07*** [0.32] | -0.19 [0.25] | 3.70*** [0.82] | -0.81** [0.37] | 10.9*** [1.75] |
| EW, slow trading | | | | | | | |
| 0.23 [0.18] | -0.048* [0.024] | 0.95*** [0.20] | 1.32*** [0.27] | -0.19 [0.25] | 3.06*** [0.82] | -0.81** [0.37] | 10.1*** [1.77] |

Figure A1
Fund Responsiveness

The figure shows the probability of a given fund trading (1/0) during the -5 to +5 trading day window around meetings of governance specialists with portfolio firms versus five alternative measures: the same probability for trading around meetings of fund managers with portfolio firms; the same probability for trading around analyst recommendation changes; the same probability for trading around shareholder votes; Active Share is the fund's deviation from its benchmark, calculated as in Cremers and Petajisto (2009), at daily frequency, using FTSE All Share Index weights (funds not managed by the UK equities desk are excluded); Annual turnover is calculated daily and annualized. All measures are averaged per fund across all meeting events and fund positions throughout the sample period. Funds with less than 100 fund positions in event time are dropped.

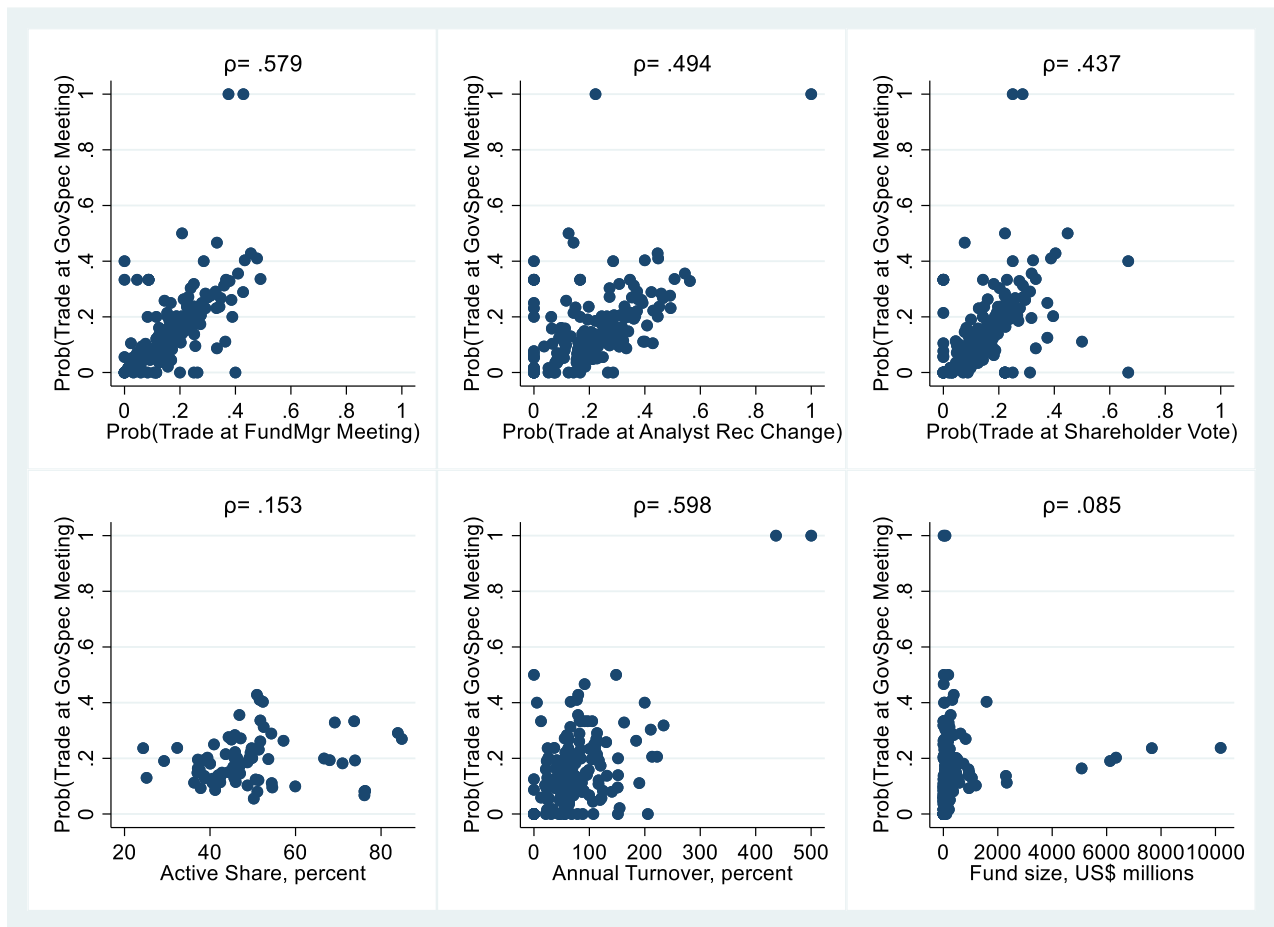


Figure A2
Meetings with Portfolio Firms Around Earnings Reports

The figure shows the frequency of fund manager and governance specialist meetings with portfolio firms during the -25 to +25 day window around the public earnings reports of portfolio firms. We identify all sample firms with available dates of earnings reports on Worldscope, where on the date of the public release at least one fund holds a position in the firm. There are 104,251 such positions and 8,080 earnings reports. For each earnings report date we verify, for a -25 to +25 day window straddling the earnings announcement, whether fund managers and governance specialists schedule meetings with the portfolio firm. The number of meetings is cumulated for each position over the 51-day window. Fund manager meetings occur with significantly higher probability *after* earnings reports. Governance specialist meetings, in comparison, do not appear to be correlated with earnings report dates. Therefore, the relative timing shows that the sharp spikes in trading on governance specialist meeting days are unlikely to be explained by public information, at least as far as earnings reports are concerned. At the same time, fund manager meetings are related to public information releases, and occur in time thereafter.

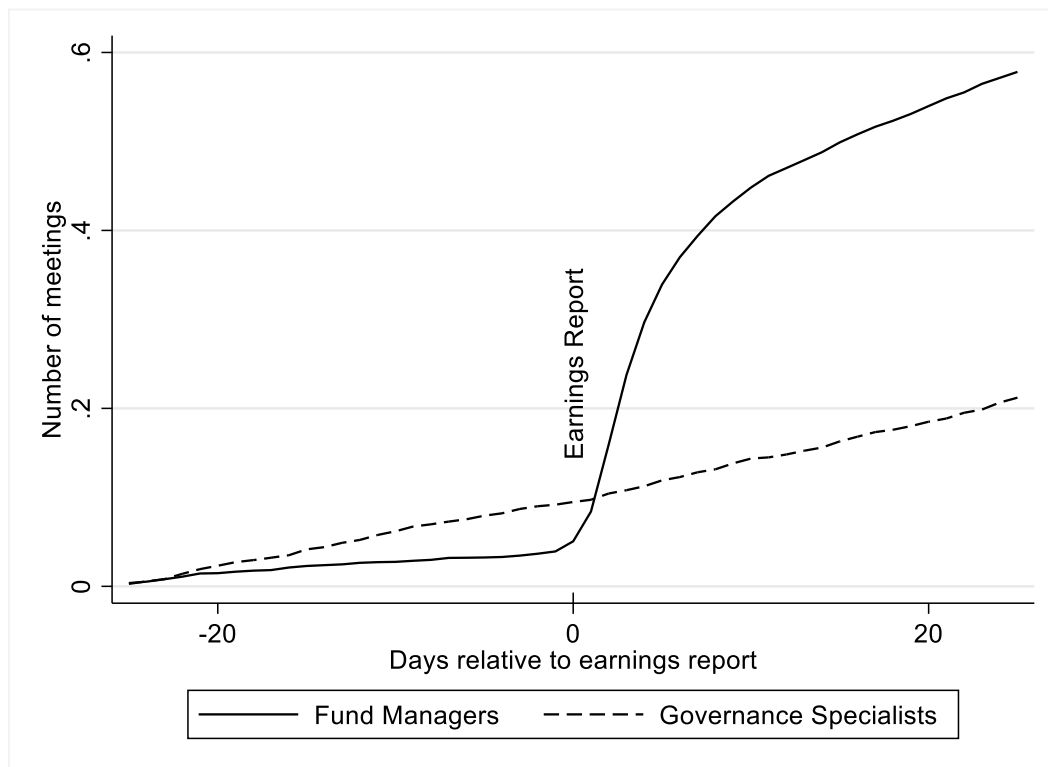
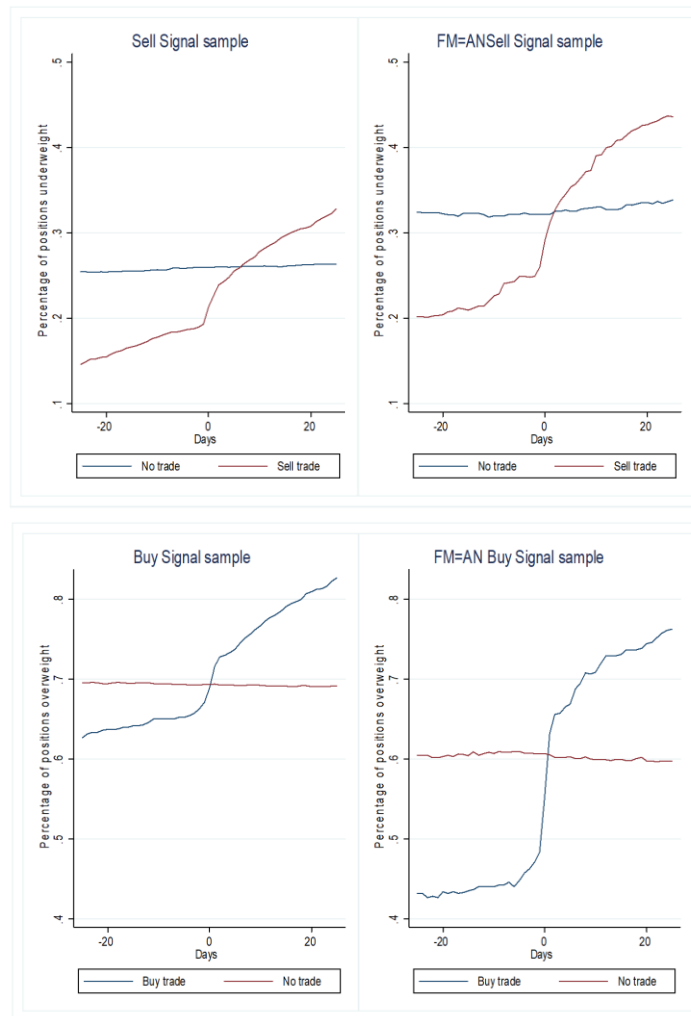


Figure A3
Portfolio Tilts Around Analyst Recommendation Changes

The figure shows the incidence of negative and positive portfolio tilts during the -25 to +25 day window around the internal publication of analyst recommendation changes. Positions without complete trading data for the 51-day period are excluded from the sample. The Buy Signal sample excludes (contrarian) Sell trades, the Sell Signal sample excludes (contrarian) Buy trades; for both samples, the FM=AN subsample is restricted to positions held where the fund manager holding the position is at the same time the Analyst issuing the recommendation change. Percentage of positions underweight (overweight) indicates the share of all positions in which a fund is underweight (overweight) the stock, relative to the FTSE All Share index weight, on that date. Buy Signal (1/0) indicates any upgrade of the stock (“Sell” to “Hold”, “Sell” to “Buy”, “Hold” to “Buy”); Sell Signal (1/0) indicates any downgrade of the stock (“Buy” to “Hold”, “Buy” to “Sell”, “Hold” to “Sell”). Buy trade indicates positions with net positive changes during the -25 to +25 window; Sell trade indicate positions with net negative changes during that same window; No trade indicates a zero net change or no trade.



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