Capitalizing on Capitol Hill: Informed Trading by Hedge Fund Managers[*]

Meng Gao   Jiekun Huang

First Draft: May 2010

This Draft: April 2011

Capitalizing on Capitol Hill: Informed Trading by Hedge Fund Managers

Abstract

In this paper, we examine the hypothesis that hedge fund managers obtain an informational advantage in securities trading through their connections with lobbyists. Using datasets on hedge fund long-equity holdings and lobbying expenses from 1999 to 2008, we show that hedge funds that are connected to lobbyists tend to trade more heavily in politically sensitive stocks than do non-connected funds. Furthermore, using a difference-in-differences approach, we find that connected hedge funds, relative to non-connected ones, outperform by 1.6 to 2.5 percent per month on their holdings of politically sensitive stocks, relative to their non-political holdings. Our study provides evidence for the ongoing debate about regulatory reform governing informed trading based on private political information.

1   Introduction

Political decisions made by governments can move stock prices, because such decisions often have profound implications for corporate strategies and profitability.[1] As a result, nonpublic information regarding political decisions, such as the likely outcome of various legislative votes, regulatory proceedings, and congressional investigations, is of considerable interest to financial market participants. Recent studies suggest that information can be disseminated among agents and incorporated into security prices through trading by agents who are connected to the source of the information (Coval and Moskowitz 2001; Cohen, Frazzini, and Malloy 2008, 2009). Yet little is known concerning the dissemination of private political information. In this paper, we test the hypothesis that hedge fund managers obtain and trade on private political information through their connections with lobbyists.

Lobbyists can have access to private political information, since they routinely exchange information with legislators and many lobbyists are former legislators.[2] A Wall Street Journal article ("Hedge Funds Use Lobbyists for Tips in Washington", *Wall Street Journal*, December 8, 2006) reports that hedge funds find Washington to be a "gold mine of market-moving information." Hedge funds hire lobbyists not to influence the government, but to obtain private information about ongoing or impending government actions. The article quotes a congressional aide as saying that "[t]he amount of insider trading going on in these halls [of the Capitol] is incredible."

The practice of lobbyists passing political information to hedge funds has raised concerns among regulators, since it can confer hedge funds an informational advantage over uninformed investors and thus discourage the latter from participating in the stock market (Guiso, Sapienza, and Zingales 2008). The Securities and Exchange Commission (SEC) launched an investigation in late 2005 to determine whether the passing of market-sensitive information by lobbyists to their hedge fund clients violated insider trading regulations. However, current insider trad-

---

[1] For example, Cohen, Coval, and Malloy (2010) show that federal spending shocks have a negative effect on corporate sector investment and employment activity. See Bernhard and Leblang (2006) for a thorough review of how political processes affect security prices.

[2] According to the Center for Responsive Politics, 64% (81%) of former U.S. Senators (Representatives) become lobbyists after retiring from Congress during 1995 and 2010.

ing laws do not apply to nonpublic information about current or upcoming legislative activity (Jerke, 2010).[3] More recently, in May 2007, Louise Slaughter (Democratic Representative, NY) and Brian Baird (Democratic Representative, WA) introduced the Stop Trading on Congressional Knowledge Act (STOCK Act). If passed, the act would prohibit congressional insiders and outside investors, such as hedge funds, from trading stocks and other securities based on private information obtained from within Congress. The act has been at the center of the debate regarding regulations of informed trading based on political information.

Our research contributes to this policy debate by providing evidence on how hedge funds exploit and benefit from private political information. We make use of a large dataset on long-equity holdings of hedge funds from 1999 to 2008 as well as a database of federal lobbying expenditures in the U.S. to identify potential information transfers from lobbyists to hedge funds. If hedge funds obtain an informational advantage through their connections with lobbyists, connected hedge funds should trade more actively in stocks that are sensitive to political decisions than do non-connected funds. Connected hedge funds should also outperform non-connected hedge funds in their politically sensitive holdings. We refer to this as the information transfer hypothesis. This is in the same vein as the recent literature on information transfer in financial markets (e.g., Coval and Moskowitz 2001; Cohen, Frazzini, and Malloy 2008, 2009).

We use the lobbying disclosure to identify the connections between hedge funds and lobbyists. We classify a hedge fund as a connected fund in a year if the fund incurs lobbying expenses in that year. To identify stocks whose prices are affected most by government policies and actions, we use a novel approach. We identify politically sensitive stocks as those that engage heavily in corporate lobbying. Since lobbying expenses represent the most important channel through which corporations seek political influence (Bombardini and Trebbi 2009), firms whose operations and profitability are affected to a greater extent by government policies are more likely to engage in active lobbying (Hochberg, Sapienza, and Vissing-Jørgensen 2009; Karolyi 2009). As a result, their stock prices should be more sensitive to political developments. For robustness, we also use the sensitivity of stock return volatility to congressional schedules to

---

[3]This is because, first, neither the tipper (members of Congress and their staffers) nor the tippee (hedge funds) owe fiduciary duties to the issuer of the security in which the hedge funds trade, and second, the hedge funds do not owe a duty of confidentiality to the source of the information.

identify political stocks, with the premise that politically sensitive stocks are likely more volatile during periods when Congress is in session than in recess. The results are qualitatively similar.

We find evidence that connected funds trade more actively in politically sensitive stocks. On average, trading volume of political stocks done by connected funds as a fraction of their total trading volume is 17.9 percent higher than that by non-connected funds after controlling for various fund characteristics. There is also some evidence that connected funds tilt their portfolio holdings more heavily towards political stocks than do non-connected funds. These findings are consistent with the information transfer hypothesis that connected hedge funds, due to their access to private political information, trade and invest disproportionately more in politically sensitive stocks.

We then examine whether connected funds outperform in their political holdings. We construct calendar time portfolios that mimic the aggregated portfolio allocations of connected and non-connected hedge funds by assigning stocks in each hedge fund portfolio into one of the two by two matrix of portfolios based on whether the hedge fund is connected and whether the stock is politically sensitive. We find that connected hedge funds earn higher returns on their political holdings. A strategy of buying a mimicking portfolio of political holdings by connected funds delivers an abnormal return of 1.4 to 1.6 percent per month, suggesting that connected funds possess an informational advantage in trading politically sensitive stocks.

Furthermore, our difference-in-differences tests show that connected funds, compared with non-connected ones, yield an abnormal return of 1.6 to 2.5 percent per month on their political positions than on non-political ones. This evidence suggests that the outperformance of connected funds on political holdings is not driven by connected fund managers being better stock pickers in general or by political stocks delivering superior returns.

We are able to explore the political investment outperformance of connected funds from time-series variation within hedge funds, because funds can switch from being connected in one year to non-connected in another, and vice versa. We thus focus on the subsample of hedge funds that have a lobbyist connection in any of the years during our sample period. We compare the performance of these funds investing in politically sensitive stocks during periods when they

are connected with that of the same funds in politically sensitive stocks during periods when they are not. The difference-in-differences tests show that connected funds, compared with the same funds during periods when they are not connected, outperform by 2 to 2.9 percent per month in political holdings than in non-political ones. The evidence suggests that the outperformance is not driven by combined fund-stock specific effects (e.g., connected funds are located closer to politically sensitive firms, and hence their trading in these nearby firms is more informative).

To test the possibility that some fund managers are simply better at processing political information regardless of whether they are connected to lobbyists, we use the propensity-score matching approach to construct a matched sample of non-connected funds in the same quarter based on fund size, trading fraction in political stocks, and portfolio weight in political stocks. The matched non-connected funds are likely to possess similar ability to process political information as connected funds to the extent that the trading fraction and the portfolio weight in politically sensitive stocks capture hedge funds' political information skills. The difference-in-differences tests again show that connected funds, compared with the matched non-connected funds, significantly outperform in political holdings than in non-political ones. The evidence indicates that access to private political information, rather than superior skills to process political information, drives the outperformance of connected funds in politically sensitive stocks.

We conduct further tests to explore the determinants of the outperformance of connected fund managers in political stocks. The information transfer hypothesis predicts that connected funds are likely to obtain private information related to the issues that their lobbyists specialize in. We find evidence consistent with this prediction. Specifically, the outperformance of connected funds is particularly strong in politically sensitive stocks that lobby for the same issues as do connected funds' lobbyists, suggesting that lobbyists pass on information related to the lobbying issues they specialize in to connected fund managers. This evidence confirms the information transfer link from lobbyists to connected funds. We also find that the outperformance is particularly pronounced when there are fewer connected funds competing for private information in political stocks, and when there are fewer outsiders, i.e., financial analysts, producing information about political stocks. We further show that the political investment outperfor-

4

mance of connected funds is more pronounced for funds that exhibit a greater bias towards political stocks in their trading activities and portfolio allocations.

We use the asbestos litigation reform in 2005 as a case study to examine informed trading by connected hedge funds in specific legislations. We follow the empirical approach of Acharya and Johnson (2010) to construct measures of unusual trading activity before the reform announcement. We find that unusual trading activity in asbestos-affected stocks preceding the announcement is associated with the number of connected funds. This result provides evidence suggesting that connected funds exploit private information related to upcoming legislations.

It may seem that our results can be explained by an influence hypothesis in which fund managers hire lobbyists to influence legislation in their favor so that they can profit from their trading in the stocks that are affected by the legislation.[4] This is unlikely to be the case because hedge funds seem to have only limited political influence. This is reflected by the fact that hedge funds spend a trivial amount of money on influencing the federal government; it represents only 0.3 percent of public corporations' lobbying expenses during our sample period. Nevertheless, we conduct two tests to evaluate this hypothesis. First, we test whether connected funds outperform more significantly on political holdings that are affected by the funds' lobbying issues than on unaffected political holdings. Second, we test whether connected funds outperform more significantly on political holdings that are less liquid since illiquidity can enhance connected funds' incentive to influence government policy rather than sell shares. The results do not support the influence hypothesis.

The remainder of the paper is organized as follows. Section 2 reviews the literature. Section 3 describes the data and summary statistics. Section 4 presents empirical results. Section 5 provides a discussion of the findings, and Section 6 concludes.

---

[4]For example, a hedge fund with significant holdings in tobacco companies would hire a lobbyist to lobby Congress for less stringent regulations on the industry, and then sell those shares after the loosening of the regulations to profit from private knowledge that the companies would benefit from less government intervention.

2 Related literature

Our paper is related to the recent literature on information transfer in the equity market. Coval and Moskowitz (2001) find that mutual fund managers deliver significant abnormal returns in investments that are geographically close. Teo (2009) show that hedge funds with a head or research office in their investment region outperform those without, suggesting that nearby funds possess an informational advantage. Cohen, Frazzini, and Malloy (2008) use education networks to identify information transfer from corporate board members to mutual fund managers with shared educational backgrounds. They show that mutual fund managers tilt their portfolios more heavily towards connected stocks and outperform on these connected positions relative to their non-connected positions. Cohen, Frazzini, and Malloy (2009) show that information can be transferred, through education networks, from corporate insiders to financial analysts as well. Massa and Rehman (2008) find evidence of information transfer from lending banks to mutual funds when both are affiliated with the same financial group. These studies, however, focus exclusively on the transfer of private firm-specific information. Our paper examines the flow of a different type of information, namely private political information. Our study also complements this literature by focusing on a setting where investors, while not endowed with an access to private information, can create an informational advantage by purchasing private information.

Our paper also joins the empirical literature on the investment strategies and performance of hedge fund managers. A large literature employs hedge fund returns data to examine the performance characteristics of hedge funds (see, e.g., Ackermann, McEnally, and Ravenscraft 1999; Brown, Goetzmann, and Ibbotson 1999; Agarwal and Naik 2000; and Kosowski, Naik, and Teo 2009). This literature finds that hedge funds on average have positive risk-adjusted performance, and there is some evidence of performance persistence at a quarterly horizon and an annual horizon. More recently, several studies link hedge fund performance to various fund characteristics, such as managerial incentive structure (Agarwal, Daniel, and Naik 2007), managers' ability to hedge (Titman and Tiu 2011), and strategy distinctiveness (Sun, Wang, and Zheng 2010). In addition, there are a number of studies using actual long-equity holdings

of hedge funds retrieved from 13F reports. The pioneering work is Brunnermeier and Nagel (2004), who use hedge fund holdings to study the investment strategies of hedge funds during the technology bubble. Griffin and Xu (2009) conduct a comprehensive examination of hedge fund performance using holdings-based analysis. They find that hedge fund managers are only marginally better than mutual fund managers at stock picking, and there is weak evidence of differential ability among hedge funds. Our study provides new insights to the hedge fund performance literature, offering evidence that access to private information can be an important source of hedge funds' superior performance.

3   Data

3.1   Hedge fund holdings data

We construct a dataset on hedge fund holdings by identifying hedge fund managers from Thomson Reuters CDA/Spectrum Institutional (13F) Holdings Database. As Griffin and Xu (2009) point out, using hedge funds' required 13F equity filings instead of hedge fund returns such as the Lipper/TASS database can avoid various problems associated with the latter, including misreporting, return manipulation, and "informationless" strategies. We first identify candidate hedge fund managers from 2002–2008 issues of Institutional Investor magazine's annual Hedge Fund 100 list and match each candidate hedge fund manager by name in the 13F database. This list is then supplemented by a list of large fund managers from 13F. Since hedge fund managers are likely classified into two types: independent investment advisor (type 4) and all others (type 5), we pick fund managers in the two categories with dollar value of equity portfolio exceeding $1 billion (in 2008 dollars) in any of the years from 1990 to 2008. This procedure produces a list of 1,641 fund managers.

Following Brunnermeier and Nagel (2004), we identify a manager as a hedge fund manager if either of the following two conditions is satisfied. First, the fund manager is not registered as an investment advisor with the SEC, and the company website or web-based searches suggest that the manager is a hedge fund. Second, if the manager is registered, we require that Form

ADV show that at least 50 percent of its clients are "other pooled investment vehicles (e.g., hedge funds)" or "high net worth individuals," and it charges performance-based fees. Since institutions report their holdings at the firm level, holdings by hedge funds that are affiliated with investment banks (such as Goldman Sachs and J.P. Morgan) are lumped together with their other lines of business, such as mutual funds and prime brokerage. We therefore exclude hedge funds affiliated with investment banks. There are 351 distinct hedge fund managers in the sample. As of December 2008, our sample hedge funds in aggregate hold 3.5 percent of the US common equity, and they account for 26 percent of the assets under management by hedge funds covered by the Lipper/TASS database. The hedge fund holdings database employed in this paper is similar to that in Griffin and Xu (2009).

3.2   Hedge fund-lobbyist connections

We use lobbying expenses of hedge funds as a metric to identify hedge fund-lobbyist connections. Specifically, we identify connected hedge funds as those that incur lobbying expenses in a given year. A hedge fund can engage a lobbyist for two purposes: to influence the government and to acquire political information. The Lobbying Disclosure Act of 1995 requires lobbyists who seek to affect U.S. government policies to publicly disclose the clients they lobby on behalf of. Lobbyists, however, are not required to disclose the information acquisition activities of their hedge fund clients, nor do hedge funds disclose such activities. Thus, we use the lobbying activity to approximate the information acquisition activity of hedge funds by assuming that hedge funds that hire lobbyists for lobbying also acquire private political information from the lobbyists. While this proxy may not perfectly capture the informational link between lobbyists and hedge funds, it introduces noise into our tests and bias against finding informed trading by these hedge funds.

We obtain lobbying data for hedge funds from the Center for Responsive Politics (CRP). The CRP lobbying data include spending by publicly traded firms, privately held firms, trade associations, ideological organizations, and non-profit organizations.[5] We merge the lobbying data with our hedge fund holdings database manually by name to extract lobbying expenses

---

[5]See, e.g., Chen, Parsley, and Yang (2009) for a description of the data.

by hedge funds. We identify 38 distinct funds (out of 351 funds) that hire lobbyists in any of the years from 1999 to 2008. Though the number of connected funds is relatively small, they represent a significant fraction of the total value of equity holdings by hedge funds since connected funds are larger in size (see Table 1, Panel B). For example, connected funds collectively account for 12.8 percent of the total dollar value of equity holdings by all sample hedge funds as of December 2008.

Panel A of Table 1 reports the distribution of lobbying expenses made by hedge funds by year during the sample period. Hedge funds have been increasingly active in hiring lobbyists during the sample period. The number of lobbying funds has increased from 6 in 1999 to 18 in 2008, and the total amount of lobbying expenses has increased 10-fold from less than $620 thousand in 1999 to over $6 million in 2008.[6] Panel B of Table 1 compares the characteristics of connected and non-connected funds. Connected funds have significantly larger portfolio size. The average portfolio size for connected funds is $4.8 billion, whereas that for non-connected funds is $2.1 billion. Connected funds churn their portfolios more actively, suggesting that connected fund managers may have better stock-picking talents. The average annual turnover ratio for connected hedge funds is 114 percent compared to 91 percent for non-connected funds, and the difference is statistically significant. To compare the difference in the stock characteristics of their holdings, we follow Hong and Kostovetsky (2010) to calculate the weighted-average logarithm of the market capitalization (*Mean component log size*) and the weighted-average logarithm of the book-to-market ratio (*Mean component log B/M*) of the stocks in a hedge fund's portfolio. Connected fund managers seem to tilt their holdings more towards smaller stocks (15.38 versus 15.58) and value stocks (-0.55 versus -0.66). Connected hedge funds also seem to hold more concentrated positions, have a higher probability of survival, as measured by whether the fund continues to file 13F reports until the last quarter of 2008, and be located closer to Washington, but the differences are insignificant.

We also match our hedge fund holdings data to the Lipper/TASS database to retrieve other fund characteristics such as incentive structure and restrictions on investor withdrawals. We are able to match 159 (out of 351) hedge fund managers to TASS. Since TASS database

---

[6]To focus on lobbyist connections of individual funds, we exclude lobbying expenses by hedge fund industry associations.

reports information on the individual fund level, we take the average across all funds under the same hedge fund company. Consistent with connected funds being larger in size, they require a higher minimum investment. Connected funds tend to impose a longer redemption notice period than non-connected ones, suggesting that they can invest in less liquid securities to exploit informational advantages. Connected funds charge a lower incentive fee than do non-connected funds.[7]

[Insert Table 1 about here]

3.3 Measuring politically sensitive stocks

Some stocks are more sensitive to government policies and actions than others. For example, industries that are deemed socially irresponsible, such as smoking, guns, gaming, and defense, can be subject to significant political influence. Companies in different industries may also be affected by the same political issue. For instance, companies in chemical, mining, shipbuilding, construction, and other industries can be exposed to asbestos-related litigations, and therefore can be affected by the passage of an asbestos bailout bill in Congress. We use corporate lobbying intensity, measured as lobbying expenditures standardized by operating cash flows, to identify politically sensitive stocks.[8] Lobbying expenses represent the most important channel through which corporations seek political influence (Bombardini and Trebbi 2009).[9] This suggests that firms whose operations and profitability are affected to a greater extent by government policies and actions are more likely to engage in active lobbying (Hochberg, Sapienza, and Vissing-Jørgensen 2009; Karolyi 2009).[10] As such, their stock prices will be more sensitive to government

---

[7] Agarwal, Daniel, and Naik (2009) find that the incentive fee percentage rate by itself does not explain hedge fund performance.

[8] For robustness, we also use the sensitivity of stock return volatility to congressional activities as an alternative metric to identify politically sensitive stocks, with the premise that politically sensitive stocks are more volatile during periods when Congress is in session than in recess. Our results still hold when this alternative metric is used (see Section 4.6). An advantage of using corporate lobbying intensity to identify politically sensitive stocks is that we know the lobbying issues targeted by the firms, which enables us to conduct further tests of the information link between lobbyists and hedge funds. We focus on the lobbying intensity-based metric in our main tables, and report the results using the alternative metric in the robustness check section.

[9] Another way a corporation can affect legislation is through campaign contributions. However, as Ansolabehere, de Figueiredo, and Snyder (2003) point out, the amount of lobbying expenses far exceeds (about 10 times in 1997-1998) that of campaign contributions.

[10] For example, Yu and Yu (2009) find that firms that commit fraud on average spend 77 percent more on lobbying than non-fraudulent firms.

decisions.

We merge the CRP lobbying data with CRSP manually by name to extract lobbying expenses by public firms from 1999 to 2008. Our sample of stocks includes all common stocks traded in the three major exchanges (NYSE, AMEX, and NASDAQ) in the CRSP-Compustat merged database. We then sort firms that incur lobbying expenses into quintiles by lobbying intensity in each year, and define politically sensitive stocks as those in the top quintile. Panel A of Table 2 shows summary statistics of lobbying expenses by public firms. Both the number of lobbying firms and the total amount of lobbying expenses have increased over the sample period. Noticeably, the total lobbying expense by the corporate sector is significantly larger than that of the hedge fund industry. Whereas hedge funds spend $21 million in lobbying over the entire sample period, public corporations spend $7.9 billion.

Panel B of Table 2 presents the top 10 industries in terms of the proportion of politically sensitive stocks in the industry and the top 10 industries in terms of the number of politically sensitive stocks in the industry. For example, the three industries with the highest proportion of politically sensitive stocks are defense (50 percent), shipbuilding/railroad industries (28.3 percent), and tobacco (22.4 percent). Since these industries either depend to a significant extent on government contracts or subject to substantial and increasingly restrictive regulations, our measure seems to do a good job of capturing industries that are sensitive to government actions.

We next run Probit regressions to examine what firm characteristics are associated with politically sensitive stocks. The dependent variable is an indicator variable that equals one if the firm's stock is politically sensitive and zero otherwise. Our key explanatory variables are congressional sensitivity, geographic distance between the firm and Washington, and sin stocks (including alcohol, tobacco, and gaming stocks, as defined in Hong and Kacperczyk, 2009). We calculate congressional sensitivity for each stock-year as the ratio of idiosyncratic volatility on days when Congress is in session to idiosyncratic volatility on days when Congress is in recess. If a stock becomes more volatile when Congress is in session than in recess, it is reasonable to believe that the stock is more sensitive to government policies and actions. We expect that the likelihood of being a politically sensitive stock increases with congressional sensitivity, since both are designed to capture the sensitiveness of stock returns to political decisions.

Firms that are affected more by political decisions may choose to locate closer to Washington, suggesting a negative relation between political sensitiveness and geographic distance. We also expect sin stocks to be associated with a greater probability of being politically sensitive, since regulations on these industries have become increasingly restrictive. We control for firm and industry characteristics suggested by the literature (e.g., Cooper, Gulen, and Ovtchinnikov 2010; Masters and Keim 1985) that are related to a firm's political activities, including firm size, number of employees, number of business segments, number of geographical segments, sales concentration, and market share.

Panel C of Table 2 presents the regression results. It should be noted that the results are not intended to imply causation, i.e., that some firm characteristics cause the stock price to be sensitive to political decisions, but instead they indicate correlation between firm characteristics and political sensitiveness. Consistent with our conjecture, the coefficients on congressional sensitivity and sin stocks are positive and significant. Firms that are headquartered closer to Washington are associated with an increased probability of being politically sensitive. We also find that larger firms, firms with more employees, firms with more business segments, firms with more cash flows, and firms from more concentrated industries are significantly more likely to become politically sensitive. These results are broadly consistent with those reported in Cooper, Gulen, and Ovtchinnikov (2010) and Masters and Keim (1985).

Panel D of Table 2 reports the value-weighted raw returns and risk-adjusted returns of politically sensitive stocks and non-politically sensitive stocks. Over the sample period from 1999 to 2008, neither politically sensitive stocks nor non-politically sensitive stocks exhibit significant abnormal returns. Furthermore, there is no difference between the performance of the two types of stocks.

[Insert Table 2 about here]

12

4 Empirical results

In this section, we present empirical results. Section 4.1 examines the trading and holdings of connected hedge funds in politically sensitive stocks. Section 4.2 investigates the performance of political holdings by connected hedge fund managers. Section 4.3 conducts further tests to explore the determinants of connected fund managers' political investment outperformance. Section 4.4 uses the 2005 asbestos litigation reform as a case study to examine informed trading by connected fund managers preceding impending legislations. Section 4.5 conducts tests on the influence hypothesis, and Section 4.6 performs various robustness checks of our main results.

4.1 Hedge fund trading and holdings in politically sensitive stocks

The information transfer hypothesis predicts that connected hedge fund managers should trade disproportionately heavily in politically sensitive stocks due to their informational advantages. To test this prediction, we compare the trading activity of connected hedge funds in political stocks with that of non-connected hedge funds. We measure hedge fund trading volume at a quarterly frequency by assuming that hedge funds do not trade intra-quarterly between two consecutive quarterly reports and the changes in holdings during a quarter occur only at the end of the quarter. For each fund-quarter, we calculate the fraction of trading volume in politically sensitive stocks as the dollar trading volume of the fund in politically sensitive stocks divided by the total dollar trading volume of the fund in the quarter.

Connected fund managers may also overweight politically sensitive stocks in their portfolios due to their informational advantage in a way similar to mutual fund managers overweighting their local investments (Coval and Moskowitz 1999). To test this, we calculate, for each fund-quarter, the portfolio weight in politically sensitive stocks as the dollar holdings of politically sensitive stocks divided by the total dollar holdings of the fund at the quarter-end. To control for the style effects of hedge fund holdings (as indicated by Table 1) and time-series variation in trading and holdings of political stocks, we follow Hong and Kostovetsky (2010) to adjust the trading fraction and the portfolio weight by running cross-sectional regressions of the raw measures on *Mean component log size* and *Mean component log B/M* and assigning

13

each observation the residual from these regressions.

Panel A of Table 3 presents the summary statistics for the fraction of trading volume done by hedge funds in political stocks and the portfolio weights of hedge funds in political stocks for the sample of all fund-quarters. Connected funds appear to trade more actively in politically sensitive stocks than non-connected funds (6.3 percent compared to 5.6 percent). While the difference is not statistically significant, it represents an increase of 11.6 percent from the mean trading fraction of 5.6 percent. The result becomes stronger when we use the residual trading fraction; the difference between connected and non-connected funds is 0.73 percent and significant at the ten percent level. Connected hedge funds also seem to tilt their portfolios more heavily towards politically sensitive stocks. For example, the mean portfolio weight of connected funds in political stocks is 5.7 percent, compared to 5.4 percent for non-connected funds, but the difference is insignificant.

We then repeat the tests on the subsample of funds that have a lobbyist connection at some point during the sample period. Since some hedge funds switch from being connected in one year to not connected in another and vice versa, this sample enables us to control for unobserved time-invariant fund-specific effects.[11] If connected funds obtain an informational advantage through their lobbyist connections, these funds should trade or invest more heavily in politically sensitive stocks during periods when they are connected than when they are not. Panel B of Table 3 show that the fraction of trading volume done by connected funds in political stocks is significantly higher than that by the same funds when they are not connected (6.3 percent compared to 5.0 percent). The difference is significant at the five percent level. Turning to the results using the residual trading fraction, we find that the average connected fund overweights its residual trading fraction in politically sensitive stocks by 0.71 percent when they are connected, whereas the same fund underweights its residual trading fraction by 0.5 percent when they are not connected. The difference of 1.2 percentage points is significant at the five percent level. While connected funds appear to tilt their holdings more heavily towards

---

[11] It is possible that, even though we observe a connected fund becomes "disconnected," i.e., terminates its lobbying activities, the fund may still maintain its information acquisition activities with the lobbyists. This can contaminate our control group of once-connected funds in non-connected periods, since some connected fund-quarters may be incorrectly categorized as non-connected. It is useful to note that this biases against finding informed trading by these funds during connected periods.

political stocks during periods when they are connected than when the same funds are not connected, the differences are insignificant.

[Insert Table 3 about here]

In Table 4, we use multivariate regressions to control for other fund characteristics. The dependent variables of interest are *Residual trading fraction* and *Residual portfolio weight* in political stocks while the independent variable of interest is an indicator variable (*Connected*) that equals one if the fund is connected to a lobbyist and zero otherwise. The control variables include portfolio size, turnover, concentration, and contractual characteristics such as minimum investment, management fees, incentive fees, redemption notice period, lock-up period, and whether the fund has a high-water mark provision. We run the regressions on the full sample of all fund-quarters with available data as well as on the subsample of funds that have a connection at some point during the sample period. The first three columns show that the residual fraction of trading volume by connected funds in politically sensitive stocks is 1 percentage point higher than that by non-connected funds, representing an increase of 17.9 percent relative to the mean trading fraction of 5.6 percent. The difference is significant across all three specifications. Connected fund managers also appear to tilt their portfolios more heavily towards politically sensitive stocks than non-connected managers, but the results are weak. Overall, the results are consistent with the information transfer hypothesis that connected hedge funds trade more heavily in politically sensitive stocks.

[Insert Table 4 about here]

4.2   Performance of connected hedge funds in politically sensitive stocks

We have so far shown that connected fund managers exhibit a political bias in their trading. This, however, does not necessarily imply that they are informed investors in these stocks. If connected hedge funds do obtain private information through their lobbyist connections, connected fund managers should outperform on their political holdings. In this section we explore the performance of politically sensitive holdings by connected hedge funds.

We use a calendar time portfolio approach to examine the performance implications of hedge funds' connections with lobbyists. At each quarter-end during 1999–2008, we assign stocks in each hedge fund portfolio to one of the two by two matrix of portfolios based on hedge fund-lobbyist connections and political sensitiveness of stocks, i.e., connected funds' holdings of politically sensitive stocks, connected funds' holdings of non-politically sensitive stocks, non-connected funds' holdings of politically sensitive stocks, and non-connected funds' holdings of non-politically sensitive stocks. We then track the monthly performance of these four portfolios over the following three months and rebalance thereafter. Stocks in the portfolios are weighted by their dollar value of holdings by the hedge funds. We calculate the monthly value-weighted portfolio returns on the four portfolios by assuming that hedge funds do not change their holdings intra-quarterly. Our approach effectively replicates the investment strategies of connected and non-connected hedge funds in political and non-political positions.

We employ two benchmarks to adjust the returns of our calendar time portfolios. The first is a five-factor model (the four Fama-French-Carhart factors plus a liquidity factor). We construct the liquidity factor IML (Illiquid Minus Liquid) using an algorithm similar to the one in Fama and French (1993) for their SMB and HML factors.[12] We compute a five-factor alpha by regressing monthly portfolio excess returns on the monthly returns from the risk factors. The second is the characteristics benchmark proposed by Daniel, Grinblatt, Titman, and Wermers (1997).[13] We calculate DGTW returns by subtracting the return on a value-weighted portfolio of all CRSP firms in the same size, book-to-market, and one-year momentum quintile from each stock's raw return.

Panel A of Table 5 reports the alpha estimates for the four portfolios using the full sample of all fund-quarters. Connected hedge funds significantly outperform in their political holdings, but do not outperform in non-political holdings. In particular, connected fund managers earn

---

[12]Specifically, at the end of each year, we sort all NYSE/AMEX/NASDAQ stocks into two size portfolios based on the median year-end market capitalization for NYSE firms and three liquidity portfolios based on the 33rd and 67th percentile breakpoints of Amihud illiquidity ratio for all firms in the sample. We then calculate monthly value-weighted returns on the six portfolios from the intersection of the two size portfolios and three liquidity portfolios starting in January of the subsequent year. The portfolios are rebalanced annually at the start of each year. The return on the IML portfolio is the difference between the equal-weighted average return on the two portfolios with high Amihud illiquidity ratio and the equal-weighted average return on the two portfolios with low Amihud illiquidity ratio.

[13]We thank Russ Wermers for graciously providing the benchmark returns. The DGTW benchmarks are available at http://www.smith.umd.edu/faculty/rwermers/ftpsite/Dgtw/coverpage.htm

a five-factor adjusted return of 1.4 percent per month (significant at the one percent level) on their political investments. The corresponding DGTW characteristics-adjusted return is 1.6 percent per month.[14] To gauge economic significance, consider a connected fund manager with the median portfolio size of \$1,714 million and the median portfolio allocation of 5.4 percent in politically sensitive stocks. The average dollar gain from investment in political stocks for the fund is \$1.3 to \$1.5 million per month.

To gauge the performance of connected funds in political stocks, we use a difference-in-differences approach. Panel A of Table 5 shows that connected funds, relative to non-connected funds, outperform by 1.6 to 2.5 percent per month in their political holdings, relative to their non-political holdings. This evidence suggests that the political investment outperformance of connected funds cannot be due to time-invariant fund-specific effects (e.g., connected fund managers having better stock picking skills in general) or time-invariant stock-specific effects (e.g., politically sensitive stocks exhibiting superior performance).

We are able to explore the political investment outperformance of connected funds from time-series variation within hedge funds, because funds can switch from being connected in one year to non-connected in another, and vice versa. We thus focus on the subsample of hedge funds that are connected at some point during the sample period. We compare the performance of these funds investing in politically sensitive stocks during periods when they are connected with that of the same funds in politically sensitive stocks during periods when they are not. Panel B of Table 5 shows that the once-connected funds do not outperform in either political holdings or non-political holdings when they are not connected with lobbyists. The difference-in-differences tests show that connected funds, relative to the same funds when they are not connected, outperform by 2 to 2.9 percent per month in political holdings, relative to non-political holdings. This evidence lends support to the information transfer hypothesis that connected fund managers have an informational advantage in political investments through their connections with lobbyists. The outperformance of political holdings by connected funds cannot be due to some combined fund-stock fixed effects. For instance, if connected fund managers and politically sensitive stocks are located close to each other, the fund managers

---

[14]This is comparable to an abnormal return of 1 percent per month earned by US Senators as documented by Ziobrowski, Cheng, Boyd, and Ziobrowski (2004).

can have an informational advantage in these local stocks (Coval and Moskowitz 2001; Teo 2009). However, since hedge funds and firms rarely change their headquarter locations,[15] the geographical proximity cannot explain the performance difference of the same funds between connected and non-connected periods.

It is possible that connected fund managers specialize in political stocks regardless of whether they are connected to a lobbyist, which explains their outperformance in politically sensitive stocks. To rule out this possibility, we construct a matched sample of non-connected funds that possess similar skills in processing political information as our connected funds and compare the performance of the matched non-connected funds with that of connected funds. Specifically, we use one-to-one nearest neighbor matching approach. To estimate a propensity score for each connected fund-quarter, we estimate a logistic regression for the panel of all fund-quarters, where the dependent variable is an indicator variable which equals one for funds that are connected to a lobbyist in the given quarter and zero otherwise. We use the following independent variables: fund size (measured as the total dollar value of the long-equity portfolio), trading fraction in politically sensitive stocks, and portfolio weight in politically sensitive stocks. For each connected fund-quarter, the matching fund is the non-connected fund in the same quarter with the closest propensity score to the connected fund. The matched non-connected funds are likely to possess similar ability to process political information as connected funds to the extent that the trading fraction and the portfolio weight in politically sensitive stocks capture hedge funds' political information skills. The difference-in-differences tests again show that connected funds, compared with the matched non-connected funds, significantly outperform in political holdings than in non-political ones.[16] The evidence indicates that access to private political information, rather than superior skills to process political information, is a necessary condition for the outperformance of connected funds in politically sensitive stocks.

[Insert Table 5 about here]

---

[15] Pirinsky and Wang (2006) show that in the period 1992-1997, less than 2.4% of firms in Compustat changed their headquarter locations.

[16] Note that the abnormal returns of connected fund-quarters (in the first two columns in Panel C of Table 5) are slightly different from those in Panel A of Table 5. This is because some fund-quarters do not have a match because of lack of data for the trading fraction. For example, the trading fraction will be missing for a fund entering the 13F database for the first time.

4.3 Determinants of connected fund managers' outperformance

Our findings so far indicate that connected hedge fund managers deliver superior performance in politically sensitive stocks. In this section, we explore the determinants of such outperformance. We partition politically sensitive stocks held by connected hedge funds by various stock characteristics, including whether the stock shares common lobbying issues with the lobbyist hired by connect fund managers, the extent of competition among connected hedge funds, and analyst coverage. We then examine the relation between connected fund managers' portfolio strategies and their outperformance in politically sensitive stocks.

4.3.A Common lobbying issues

Connected funds are likely to obtain private information related to the lobbying issues that their lobbyists specialize in. For instance, a lobbyist working for corporate clients on health care reform is likely to possess and pass private information related to the reform to her hedge fund clients, which indicates that these connected funds should outperform more significantly in their holdings of political stocks that are affected by the health reform legislation. We posit that the stock price of firms that lobby for certain issues is likely to be affected by these issues. Thus the information transfer hypothesis predicts that connected funds should outperform more significantly in stocks that lobby for the same issues as the lobbyists hired by the connected funds. Note that in such cases the connected funds do not necessarily exert influence on the legislation decision-making process, but instead get access to whatever information their lobbyists may possess.[17]

To test whether connected funds obtain private information regarding the lobbying issues that their lobbyists specialize in, we assign politically sensitive stocks in each connected fund's portfolio into one of two portfolios: related political holdings and unrelated political holdings. Related political holdings by a connected fund are politically sensitive stocks in the fund's portfolio that lobby for the same issues as the lobbyist hired by the hedge fund under consideration, and unrelated political holdings are otherwise. We use the 74 general lobbying issue codes

---

[17]In Section 4.5, we evaluate the influence hypothesis by testing whether connected funds outperform more significantly in stocks that these funds have an influence through their lobbying activity.

defined by the Lobbying Disclosure Act to identify common lobbying issues.[18] Panel A of Table 6 reports the abnormal returns for the two portfolios. Connected funds' investment strategy in related political holdings generates an abnormal return of 1.5 to 1.7 percent per month, depending on the risk benchmarks. In contrast, connected hedge funds do not outperform in unrelated political holdings. The evidence confirms the information transfer link from lobbyists to connected hedge funds.[19]

4.3.B Competition for private information among connected hedge funds

Since competition among informed investors tends to induce these investors to trade aggressively (e.g., Holden and Subrahmanyam 1992), thereby revealing their information more quickly, connected fund managers will be able to realize greater gains from their private information when there is less competition among informed investors. In other words, connected fund managers' private information is more valuable when it is not shared with other connected funds. To test this prediction, we assign politically sensitive stocks in connected hedge fund portfolio to one of the two portfolios based on the median number of connected funds. Non-competitive political stocks are those that are held by less than the median number of connected fund managers, whereas competitive political stocks are those that are held by more than the median number of connected fund managers. We then track the monthly performance of these two portfolios over the following three months and rebalance thereafter.

Panel B of Table 6 reports the abnormal returns of these two portfolios. The outperformance of connected funds' politically sensitive stocks comes mainly from non-competitive political stocks. Connected fund managers earn 2.1 to 2.4 percent abnormal returns per month on their non-competitive political holdings, compared with about 0.4 to 0.6 percent per month for competitive political holdings. The difference in performance between non-competitive and

---

[18] For example, the top five lobbying issues in terms of lobbying expenses by public corporations during our sample period are TAX (taxation), BUD (federal budget and appropriations), HCR (health issues), TRD (trade), and ENG (energy and nuclear power).

[19] A related question is whether lobbyists pass on private *firm*-specific information of their corporate clients, rather than political information, to their hedge fund clients. Such information transfer may violate insider trading regulations. We test this by examining connected funds' outperformance when the funds and their portfolio companies hire the same lobbyist. The results, not reported, show that connected funds do not deliver outperformance on holdings of political stocks that hire the same lobbyist, suggesting that the information is not company specific.

competitive political holdings is both economically and statistically significant. Since connected fund managers are likely to obtain correlated private information from lobbyists, this finding indicates that as more fund managers compete for such private information, the information becomes less valuable.

4.3.C Analyst coverage

Connected hedge funds may also be able to better exploit their informational advantage when there is less information produced by outsiders, such as financial analysts, about the stocks. We retrieve data on the number of analysts covering a firm from IBES. We follow similar procedures as above to construct two portfolios based on the median number of analysts. Opaque political stocks are those that are covered by less than the median number of analysts, whereas transparent political stocks are those that are covered by more than the median number of analysts. Panel C of Table 6 reports the abnormal returns of these two portfolios. The outperformance of connected funds' politically sensitive stocks appears to be driven mainly by opaque political stocks. Connected fund managers earn 1.6 to 2 percent abnormal returns on their opaque political holdings, compared with about 1 to 1.2 percent for transparent political holdings (the difference is not statistically significant). This finding indicates that information production by financial analysts can potentially reduce the informational advantage possessed by connected fund managers.

[Insert Table 6 about here]

4.3.D Political bias and connected fund performance

We have so far documented that connected fund managers exhibit a bias towards politically sensitive stocks (both in terms of trading and holdings) and that they outperform significantly in these political stocks. It is possible that connected funds that exhibit a greater bias in their trading and holdings can deliver higher returns from doing so. To test this, we partition our sample of connected fund managers into two groups based on their political bias at the end of each quarter. We use two measures to capture a connected fund's political bias: the fraction

21

of trading volume in politically sensitive stocks and the portfolio weight in politically sensitive stocks. Connected fund managers with a higher than the median bias are defined as high-bias funds, and those with a lower than the median bias are low-bias funds. We then track the monthly performance of high- and low-bias funds' portfolios of politically sensitive stocks over the following three months and rebalance thereafter.

Table 7 reports the results. For each portfolio, we report the two measures of political bias as well as abnormal returns. Panel A partitions connected fund managers based on the median fraction of trading volume in politically sensitive stocks. Not surprisingly, for funds that exhibit a high trading bias, trading in politically sensitive stocks accounts for 10 percent of their total trading, compared to only 2.2 percent for funds with a low trading bias. More important, political holdings by high-bias funds significantly outperform those by low-bias funds. For example, the five-factor adjusted return for political holdings by highly politically biased funds is 1.6 percent per month, compared to −1 percent per month for those by less biased funds. The difference is both economically and statistically significant. Panel B of Table 7 shows the results when we partition connected fund managers based on the median portfolio weight in politically sensitive stocks. The results are qualitatively similar.

[Insert Table 7 about here]

4.4 Connected funds and suspicious equity trading activity: The case of asbestos litigation reform

To examine informed trading by connected fund managers preceding impending legislations, we use the asbestos litigation reform in 2005 as a case study.[20] On November 16, 2005, Senate Majority Leader Bill Frist promised a full Senate vote on a bailout bill to create a $140 billion public trust fund for asbestos liability claims, which had a significant impact on the stock price of companies affected by asbestos litigations. Yet, there were suspicious trading activity and price

---

[20]We choose the asbestos legislation because of two reasons. First, the legislation has a significant effect on the stock price of a well-defined set of companies, i.e., companies affected by asbestos litigations. Second, there was alleged information leakage preceding the public announcement of the reform, which prompted an SEC investigation.

movements of asbestos-affected stocks in the days immediately preceding the senator's speech.[21] This prompted the SEC to investigate whether and how information may have reached Wall Street from the senator's office.

Our empirical strategy is to detect unusual trading activity preceding the event date, and to link it to the presence of connected funds. If connected funds receive and trade on the private information regarding the impending asbestos legislation, there should be a positive relation between the number of informed investors (connected funds) and unusual trading activity during the period before the event date (see, e.g., Back, Cao, and Willard 2000; Acharya and Johnson 2010).

We identify companies that are affected by asbestos litigations by using a web-crawling program to search 10-K filings for firms with asbestos liabilities[22] and by using the CRP lobbying database to identify companies that list asbestos litigation or the Fairness in Asbestos Injury Resolution Act (FAIR Act) as their lobbying issues. We are able to identify 68 asbestos-affected companies.

We use the conditional variant of Acharya and Johnson (2010) to construct measures of unusual trading activity. Specifically, we first regress volume and returns on a constant, lagged volume and returns, day-of-week dummies, contemporaneous volume and return for market index using daily data for a three month period preceding the event. We then use the regression residuals to construct two measures to capture suspicious trading activity. *Max*, which is intended to capture intense bursts of activity of competing informed investors, is the maximum of the daily standardized residuals from the above regressions during the three trading days before the event. *Sum*, which is intended to capture strategic trading behavior of a monopolistic informed investor, is the sum of the positive standardized residuals during the same three-day period. We use the following regression specification to examine whether more connected funds lead to more unusual trading activity:

$$Unusual\ trading\ activity = c_0 + c_1 \cdot \#\ of\ connected\ funds + c_2 \cdot \#\ of\ non\text{-}connected\ funds + \sum c_j X_j$$

---

[21] See, e.g., "Washington Whispers To Wall Street", *BussinessWeek*, December 26, 2005.

[22] To ensure that the firms face significant potential costs related to asbestos, we exclude firms stating that the asbestos liabilities would not materially affect their operation or financial performance.

where # *of connected funds* and # *of non-connected funds* are the number of connected and non-connected funds, respectively, at the most recent quarter-end, i.e., September 30, 2005. We control for firm characteristics, including firm size, market-to-book, leverage, return volatility, market beta, Amihud illiquidity ratio, and turnover.

The results, reported in Table 8, show that the coefficients of # *of connected* are positive and generally significant, suggesting that more connected funds are associated with a greater likelihood of informed trading in asbestos-affected stocks.[23] We also conduct an F-test for the null hypothesis that the coefficient on # *of connected funds* (c_1) and the coefficient on # *of non-connected funds* (c_2) are equal. The test rejects the equality of the two coefficients. These results provide evidence suggesting that connected funds exploit private information about impending legislation.

[Insert Table 8 about here]

4.5 Is it information or influence?

One may wonder whether our results can be explained by the influence hypothesis in which connected hedge funds bet on stocks that are affected by the lobbying issues they themselves lobby for. In other words, connected hedge funds might accumulate positions in stocks that are likely to be affected by certain political issues, and at the same time hire lobbyists to influence the outcome of the issues in their favor. This hypothesis is unlikely to be the main driver of our results because hedge funds seem to have rather limited political influence. Hedge funds spend a trivial amount of money, compared to public corporations, on lobbying the federal government ($21 million versus $7.9 billion). This sharp contrast between corporations and hedge funds in terms of lobbying expenses can be due to two reasons. First, it is not cost-efficient for individual hedge funds to expend costly effort to lobby for issues affecting their portfolio companies due to free-rider problems. Second, corporations have a strong incentive to lobby for favorable policies or against unfavorable ones since the profitability and even survival

---

[23]Interestingly, the coefficients on # *of non-connected funds* are significantly negative in the return regressions. This indicates that non-connected funds play the role of liquidity providers, mitigating the price impact of informed trading by connected funds.

24

can be affected by government decisions. In contrast, hedge funds can simply sell shares in the market, rather than influence the government, if they expect their portfolio companies will be adversely affected by government policies.

Nevertheless, we conduct two tests to examine the influence hypothesis. First, the influence hypothesis predicts that connected funds should outperform more significantly on political stocks that are affected by the lobbying issues of the funds than on those that are not affected. We assign politically sensitive stocks in each connected fund's portfolio into one of two portfolios: affected political stocks, those that lobby for the same issues as does the connected fund, and unaffected political stocks, those that lobby for different issues. Panel A of Table 9 reports the abnormal returns for the two portfolios. Connected hedge funds deliver abnormal returns of 0.8 to 0.9 percent per month in affected political stocks (significant at the ten percent and five percent level, respectively). However, connected funds' political investment outperformance seems to be concentrated among political stocks that lobby for different issues; the outperformance is 1.5 to 1.6 percent per month and significant at the one percent level.

Second, the influence hypothesis predicts that connected funds should outperform more significantly on political holdings that are less liquid since illiquidity can enhance connected funds' incentive to influence government policy rather than sell shares. We thus assign politically sensitive stocks in each connected fund's portfolio into two portfolios based on the median Amihud (2002) illiquidity ratio in each quarter. Panel B of Table 9 reports the abnormal returns for the two portfolios. Connected hedge funds earn significant abnormal returns exceeding 1 percent per month in both illiquid and liquid political holdings. The difference in the performance of the two portfolios is insignificant. Overall, these results, together with the fact that hedge funds incur a trivial amount of lobbying expenditures, suggest that hedge funds' political influence is not the main driver of our findings.

[Insert Table 9 about here]

4.6 Robustness checks

In this section, we conduct various robustness checks of our main results that connected hedge funds outperform in their political holdings. To conserve space, we only report the results for the five-factor alpha, but the results for the DGTW characteristics-adjusted returns are qualitatively similar.

4.6.A An alternative measure of political sensitiveness of stocks

We use congressional sensitivity as an alternative measure of politically sensitive stocks. We calculate congressional sensitivity for each stock-year as the ratio of idiosyncratic volatility on days when Congress is in session to idiosyncratic volatility on days when Congress is in recess. If a stock becomes more volatile when Congress is in session than in recess, it is reasonable to believe that the stock is more sensitive to government policies and actions. We then calculate the equal-weighted congressional sensitivity for three-digit SIC industries in each year. We sort the industry-level congressional sensitivity into deciles each year based on congressional sensitivity, and define stocks in the top decile as politically sensitive stocks.

Panel A of Table 10 report the difference-in-differences estimate of five-factor alpha when we use congressional sensitivity (at the industry level) to identify politically sensitive stocks. Consistent with the information transfer hypothesis that connected fund managers have an informational advantage in politically sensitive stocks, we find that connected funds, compared to non-connected funds, outperform by 1.4 percent per month in political holdings relative to non-political holdings.

4.6.B Connected fund performance over time

As Table 1 suggests, hedge funds increasingly seek out political information over time. Thus, we examine whether the informational advantage of connected hedge funds decays over time due to greater competition in information acquisition. We split the sample period into two subperiods with equal length. Panel B of Table 10 reports the difference-in-differences estimate

of five-factor alpha. Connected funds outperform in both subperiods. However, the political investment outperformance of connected hedge funds becomes less evident during the second half of the sample period, falling from 3.4 percent per month in the first half of the sample period to 0.6 percent per month in the second half. This evidence echoes our earlier result that connected funds' outperformance decreases in the number of connected funds in the cross section of political stocks, suggesting that competition among informed investors drives down the return to private information acquisition.

4.6.C Is connected fund performance replicable by uninformed investors?

To test whether uninformed and non-connected investors can successfully replicate the performance of connected fund managers, we split the three-month holding period into two subperiods based on whether hedge funds' 13F holdings reports are made public. Since uninformed investors can replicate the political positions of connected fund managers after the public disclosure of the 13F reports, one would expect that political holdings by connected funds do not deliver abnormal returns in the post-disclosure period in a semi-strong form efficient market. As such, the outperformance should be driven mainly by the pre-disclosure period. Since 13F reports filed by hedge funds are made public within 45 days after the end of the quarter, we split the sample period into a pre-disclosure period (the first 45 days after the quarter-end) and the post-disclosure period. Panel C of Table 10 shows that the difference-in-differences estimate of five-factor alpha is 3.4 percent per month during the pre-disclosure period, and becomes insignificant during the post-disclosure period. This result suggests that uninformed investors are not able to exploit the information in connected funds' holdings reports.

[Insert Table 10 about here]

5 Discussion of results

Our results show that connected funds deliver an abnormal return of 1.4 to 1.6 percent per month on their holdings of political stocks, or a dollar gain of $1.3 to $1.5 million per month for

the median fund. The rate of return earned by these connected hedge funds seems extremely high if one assumes that the observed lobbying expenses by connected funds are close to the true costs of acquiring political information. However, it is possible that the disclosed expenses are just a tip of the iceberg; the true costs for hedge funds to acquire political information can be much greater. For instance, hedge funds may incur high fixed costs, e.g., to search for potentially informed lobbyists and to set up a research team to process such information. We find that only large hedge funds have lobbyist connections (as shown in Table 1), which seems consistent with the idea that there are high fixed costs associated with political information acquisition. Another possibility is that the market for political information may not be perfectly competitive because only large funds can afford the high fixed costs associated with entering the market. This suggests that as more funds hire lobbyists to acquire information, the equilibrium return to private information acquisition should decline. We find cross-sectional and time-series evidence consistent with this conjecture in Section 4.3.B and Section 4.6.B, respectively.

The political investment outperformance results raise an interesting question: why hedge funds do not allocate more portfolio weights to political stocks? This seems puzzling given that political investments by connected funds deliver such high returns. There can be several reasons. First, informed trading by connected fund managers can make the stock less liquid because market makers and uninformed investors require an adverse selection premium to trade in the stock (see, e.g., Glosten and Milgrom 1985), thereby limiting the trading positions by connected fund managers. Second, connected funds may impose limits on their positions due to regulatory disclosure concerns. For instance, Section 13(d) and Section 13(g) of the Securities Act of 1933 require an investor acquiring more than five percent of a class of equity security to file with the SEC within 10 days of the acquisition. Third, hedge funds may have access to other information sources, e.g., senior managers of firms located nearby (Teo 2009) and peer hedge fund managers (Gray 2010), which enable them to diversify their investments and improve their risk-return profile.

6 Conclusions

In this paper, we examine the hypothesis that hedge fund managers exploit private political information through their connections with lobbyists. Using datasets on the long-equity holdings of hedge funds and their lobbying disclosure, we find that hedge funds with a connection to lobbyists tend to trade more heavily in politically sensitive stocks. Connected hedge funds also perform significantly better on political holdings than on non-political holdings. A portfolio of politically sensitive stocks held by connected hedge funds delivers an abnormal return of 1.4 to 1.6 percent per month depending on the specifications. Using a difference-in-differences approach, we show that connected hedge funds, relative to non-connected ones, outperform by 1.6 to 2.5 percent per month on political holdings, relative to non-political holdings. The results are qualitatively unchanged if we use the subsample of funds that have a lobbyist connection at some point during the sample period, or if we use a propensity-score matched sample.

Our paper contributes to the current policy debate regarding the regulation of trading on private political information. We provide evidence that private political information can be transimitted from lobbyists to hedge fund managers and incorporated into stock prices through the trading of the latter. A policy implication of our study is that such information flow should be regulated to ensure a fair and level playing field for all financial market participants. Our results also provide new insights into the hedge fund industry, offering evidence that access to private information can be an important source of hedge funds' superior performance.

References

[1] Acharya, Viral V., and Timothy C. Johnson, 2010, More insiders, more insider trading: Evidence from private equity buyouts, *Journal of Financial Economics* 98, 500–523.

[2] Ackermann, Carl, Richard McEnally, and David Ravenscraft, 1999, The performance of hedge funds: Risk, return, and incentives, *Journal of Finance* 54, 833–874.

[3] Agarwal, Vikas, Naveen D. Daniel, and Naik, Narayan Y., 2009, Role of managerial incentives and discretion in hedge fund performance, *Journal of Finance* 64, 2221–2256.

[4] Agarwal, Vikas, and Naik, Narayan Y., 2000, Multi-period performance persistence analysis of hedge funds, *Journal of Financial and Quantitative Analysis* 35, 327–342.

[5] Ansolabehere, Stephen, John M. de Figueiredo, and James M. Snyder Jr., 2003, Why is there so little money in U.S. politics? *Journal of Economic Perspectives* 17, 105–130.

[6] Back, Kerry, Henry C. Cao, and Gregory A. Willard, 2000, Imperfect competition among informed traders, *Journal of Finance* 55, 2117–2155.

[7] Bernhard, William, and David Leblang, 2006, *Democratic processes and financial markets: Pricing politics*, Cambridge University Press, Cambridge, U.K.

[8] Bombardini, Matilde, and Francesco Trebbi, 2009, Competition and political organization: Together or alone in lobbying for trade policy? Working paper, University of British Columbia and University of Chicago.

[9] Brown, Stephen J., William N. Goetzmann, and Roger G. Ibbotson, 1999, Off-shore hedge funds: Survival and performance, *Journal of Business* 72, 91–117.

[10] Brunnermeier, Markus K., and Stefan Nagel, 2004, Hedge funds and the technology bubble, *Journal of Finance* 59, 2013–40.

[11] Chen, Hui, David C. Parsley, and Ya-wen Yang, 2010, Corporate lobbying and financial performance, Working paper, Vanderbilt University.

[12] Cohen, Lauren, Joshua Coval, and Christopher J. Malloy, 2010, Do powerful politicians cause corporate downsizing? Working paper, Harvard Business School.

[13] Cohen, Lauren, Andrea Frazzini, and Christopher J. Malloy, 2008, The small world of investing: Board connections and mutual fund returns, *Journal of Political Economy* 116, 951–979.

[14] Cohen, Lauren, Andrea Frazzini, and Christopher J. Malloy, 2009, Sell side school ties, *Journal of Finance*, forthcoming.

[15] Cooper, Michael J., Huseyin Gulen, and Alexei V. Ovtchinnikov, 2010, Corporate political contributions and stock returns, *Journal of Finance*, 65, 687–724.

[16] Coval, Joshua, and Tobias Moskowitz, 2001, The geography of investment: Informed trading and asset prices, *Journal of Political Economy* 109, 811–41.

[17] Daniel, Kent, Mark Grinblatt, Sheridan Titman, and Russ Wermers, 1997, Measuring mutual fund performance with characteristic-based benchmarks, *Journal of Finance* 52, 1035–1058.

[18] Fama, Eugene, and Kenneth R. French, 1993, Common risk factors in the returns on stocks and bonds, *Journal of Financial Economics* 33, 3–56.

[19] Fung, William, and David A. Hsieh, 1997, Empirical characteristics of dynamic trading strategies: The case of hedge funds, *Review of Financial Studies* 10, 275–302.

[20] Gray, Wesley R., 2010, Facebook for finance: Why do investors share ideas via their social networks, Working paper, Drexel University.

[21] Griffin, John M., and Jin Xu, 2009, How smart are the smart guys? A unique view from hedge fund stock holdings, *Review of Financial Studies* 22, 2331–2370.

[22] Glosten, Lawrence R., and Paul R. Milgrom, 1985, Bid, ask and transaction prices in a specialist market with heterogeneously informed traders, *Journal of Financial Economics* 14, 71–100.

[23] Hochberg, Yael V., Paola Sapienza, and Annette Vissing-Jørgensen, 2009, A lobbying approach to evaluating the Sarbanes-Oxley Act of 2002, *Journal of Accounting Research* 47, 519–583.

[24] Holden, Craig H., and Avanidhar Subrahmanyam, 1992, Long-lived private information and imperfect competition, *Journal of Finance* 47, 247–270.

[25] Hong, Harrison, and Leonard Kostovetsky, 2010, Red and blue investing: Values and finance, *Journal of Financial Economics*, forthcoming.

[26] Jerke, Bud W., 2010, Cashing in on Capitol Hill: Insider trading and the use of political intelligence in beating the market, Working paper, University of Pennsylvania Law School.

[27] Karolyi, G. Andrew, 2009, Discussion of a lobbying approach to evaluating the Sarbanes-Oxley Act of 2002, *Journal of Accounting Research* 47, 585–595.

[28] Kosowski, Robert, Narayan Y. Naik, and Melvyn Teo, 2007, Do hedge funds deliver alpha? A Bayesian and bootstrap analysis, *Journal of Financial Economics* 84, 229–264.

[29] Massa, Massimo, and Zahid Rehman, 2008, Information flows within financial conglomerates: Evidence from the banks–mutual funds relation, *Journal of Financial Economics* 89, 288–306.

[30] Masters, Matrick F., and Gerald D. Keim, 1985, Determinants of PAC participation among large corporations, *Journal of Politics* 47, 1158–1173.

[31] Pirinsky, Christo A., and Qinghai Wang, 2006, Does corporate headquarters location matter for stock returns? *Journal of Finance* 61, 1991–2015.

[32] Sun, Zheng, Ashley Wang, and Lu Zheng, 2010, The road less traveled: Strategy distinctiveness and hedge fund performance, Working paper, University of California Irvine.

[33] Teo, Melvyn, 2009, The geography of hedge funds, *Review of Financial Studies* 22, 3531–3561.

[34] Titman, Sheridan, and Cristian Tiu, 2011, Do the best hedge funds hedge? *Review of Financial Studies* 24, 123–168.

[35] Yu, Frank, and Xiaoyun Yu, 2009, Corporate lobbying and fraud detection, *Journal of Financial and Quantitative Analysis*, forthcoming.

[36] Ziobrowski, Alan J., Ping Cheng, James W. Boyd, and Brigitte J. Ziobrowski, 2004, Abnormal returns from the common stock investments of the U.S. Senate, *Journal of Financial and Quantitative Analysis* 39, 661–676.

Table 1: Summary statistics for the hedge fund sample

This table reports the summary statistics of our hedge fund sample. We identify connected hedge funds as those that incur lobbying expenses in a given year. Panel A presents the lobbying expenses of connected hedge funds by year from 1999 to 2008. The last row reports the number of distinct funds, the number of distinct connected funds, and the mean, median, and sum of lobbying expenses during the 1999-2008 period. Panel B compares the characteristics of connected and non-connected funds. *Portfolio size* is the total market value of long-equity holdings at year end. Turnover ratio is calculated quarterly as the sum of buys and sells divided by 0.5 times the sum of the portfolio size at the start of the quarter and that at the end of the quarter. *Annual turnover ratio* is obtained by multiplying the quarterly turnover ratio by 2. *Mean component log size* is a weighted average of the log market cap of stocks in the hedge fund's portfolio (weighted by their portfolio weight). *Mean component log B/M* is a weighted average of the log book-to-market of stocks in the hedge fund's portfolio (weighted by their portfolio weight). *Portfolio concentration* is measured as the inverse of the number of stocks held in the portfolio. *Survival* is an indicator variable that equals one if the fund continues to file 13F reports until the end of the sample period, i.e., the last quarter of 2008, and equals zero otherwise. *Geographical distance* is measured as the distance between the headquarter of the hedge fund and Washington DC. Funds that are headquartered outside of U.S. are not included in this calculation. *Management fee* and *Incentive fee* are terms of the compensation contract of hedge funds. *High-water mark* is an indicator variable that equals one if the fund has a high-water mark provision, and equals zero otherwise. *Minimum invest* is the minimum investment, in dollars, required by the fund. *Lock-up period* is the minimum time that an investor has to wait (after making her investment) before withdrawing invested money. *Redemption notice period* is the time the investor has to give notice to the fund about an intention to withdraw money from the fund. We report the mean and median statistics for connected hedge funds and non-connected hedge funds. The last two columns test the significance of the differences in the means and medians between the two groups of hedge funds. Numbers in parentheses are *p*-values based on *t*-tests the difference in means and the Wilcoxon rank-sum tests for the difference in medians. Significance on a 10% (*), 5% (**), or 1% level (***) is indicated.

Panel A: Lobbying expenses of hedge funds by year: 1999-2008

	Total # of funds	# of connected funds	Lobbying expenses ($)		
			Mean	Median	Sum
1999	162	6	103,333	115,000	620,000
2000	183	4	97,500	90,000	390,000
2001	190	4	125,000	60,000	500,000
2002	224	3	205,000	220,000	615,000
2003	247	14	76,429	50,000	1,070,000
2004	277	14	91,429	60,000	1,280,000
2005	302	12	92,333	80,000	1,108,000
2006	319	14	92,857	40,000	1,300,000
2007	318	12	652,604	170,000	7,831,248
2008	303	18	349,861	85,000	6,297,500
All Years	351	38	208,037	80,000	21,011,748

Panel B: Characteristics of connected and non-connected hedge funds

	Connected funds		Non-connected funds		Test equality	
	Mean	Median	Mean	Median	Mean	Median
Portfolio size ($m)	4,803.11	1,714.27	2,062.23	910.44	(<0.001)***	(<0.001)***
Annual turnover rate	1.14	1.02	0.91	0.70	(<0.001)***	(<0.001)***
Mean component log size	15.38	15.50	15.58	15.62	(<0.001)***	(0.005)***
Mean component log B/M	-0.55	-0.54	-0.66	-0.61	(<0.001)***	(<0.001)***
Portfolio concentration	0.05	0.01	0.04	0.01	(0.119)	(0.409)
Survival	0.85	1.00	0.82	1.00	(0.624)	(0.625)
Geographical distance (mi)	533.44	203.74	621.45	203.74	(0.530)	(0.825)
Management fee (%)	1.29	1.33	1.44	1.42	(0.312)	(0.568)
Incentive fee	0.15	0.20	0.18	0.20	(0.020)**	(0.090)*
High-water mark	0.70	0.76	0.71	1.00	(0.925)	(0.791)
Minimum invest ($m)	3.40	2.00	1.51	1.00	(0.070)*	(0.026)**
Lock-up period (months)	6.20	3.00	5.45	3.00	(0.671)	(0.911)
Redemption notice (days)	52.98	45.00	40.21	31.50	(0.055)*	(0.058)*

Table 2: Lobbying expenses and characteristics of politically sensitive stocks

This table reports the summary statistics of the lobbying expenses of public firms and the determinants of politically sensitive stocks. We identify politically sensitive stocks as those that are ranked in the top quintile of lobbying firms in terms of lobbying intensity, measured as lobbying expenses standardized by operating cash flows, in a given year. Panel A presents the lobbying expenses of public firms by year from 1999 to 2008. The last row reports the number of distinct firms, the number of distinct lobbying firms, and the mean, median, and sum of lobbying expenses during the 1999-2008 period. Panel B presents the top 10 industries in terms of the proportion of politically sensitive stocks in the industry and the top 10 industries in terms of the number of politically sensitive stocks in the industry. The industry is defined using Fama-French 48 industry classification. Panel C presents Probit regression results with a binary variable of being a politically sensitive stock as the dependent variable. *Congressional sensitivity* is computed annually for each stock as the ratio of idiosyncratic volatility on days when Congress is in session to idiosyncratic volatility on days when Congress is in recess. *Geographical distance* is measured as the logarithm of the distance between the headquarter of the firm and Washington. Following Hong and Kacperczyk (2009), we define *sin stocks* as the union of the Fama and French (1997) industry groups 4 (alcohol) and 5 (tobacco) along with the NAICS group for gaming. We include *Firm size* (natural logarithm of total assets), *market-to-book*, *# of employees*, *# of business segments*, *# of geographic segments*, *cash flow*, *book leverage*, *market share* (annual sales divided by industry sales at the three-digit SIC level), and *Herfindahl index* (Herfindahl sales concentration index at the three-digit SIC level) as controls. Panel D presents the value-weighted raw returns and risk-adjusted returns of politically sensitive stocks and non-politically sensitive stocks. Numbers in parentheses are *t*-statistics. In Panel C, the standard errors are robust to heteroskedasticity and arbitrary within-firm serial correlation. Significance on a 10% (*), 5% (**), or 1% level (***) is indicated.

Panel A: Lobbying expenses of public firms by year: 1999-2008

	Total # of firms	# of firms that lobby	Lobbying expenses ($)		
			Mean	Median	Sum
1999	6,719	815	571,077	123,000	465,427,465
2000	6,663	806	601,085	120,000	484,474,423
2001	6,013	806	619,816	120,721	499,571,795
2002	5,458	832	629,364	140,000	523,630,499
2003	4,976	867	648,589	160,000	562,326,601
2004	4,854	879	683,326	180,000	600,643,796
2005	4,861	945	697,502	180,000	659,139,016
2006	4,744	966	732,485	181,500	707,580,192
2007	4,611	975	824,776	200,000	804,156,134
2008	4,456	971	1,008,281	200,000	979,040,413
All Years	9,397	1,763	715,230	160,000	7,891,142,760

Panel B: Industry representation of politically sensitive stocks

	Top 10 industries in terms of the proportion of politically sensitive stocks in the industry		Top 10 industries in terms of the number of politically sensitive stocks in the industry	
	Industry	% of firm-years	Industry	# of firm-years
1	Defence	50.00%	Business Services	234
2	Shipbuilding/Railroad	28.28%	Electronic Equipment	141
3	Tobacco	22.41%	Transportation	98
4	Coal	21.52%	Pharmaceuticals	96
5	Aircraft	20.48%	Medical Equipment	90
6	Other	9.36%	Computers	78
7	Transportation	9.13%	Insurance	77
8	Agriculture	8.27%	Communication	61
9	Healthcare	7.32%	Healthcare	59
10	Shipping Containers	7.14%	Utilities	57

Panel C: Probit regressions of being a politically sensitive stock

	(1)	(2)	(3)	(4)
Congressional sensitivity	0.009***	0.007***	0.007***	0.002***
	(3.30)	(3.21)	(3.04)	(2.76)
Geographical distance	−0.003**	−0.003**	−0.002**	−0.001**
	(2.04)	(2.43)	(2.11)	(2.14)
Sin stocks	0.030*	0.040*	0.055**	0.027**
	(1.68)	(1.74)	(2.04)	(2.12)
Firm size	0.007***	0.006***	0.002**	0.001*
	(10.03)	(11.08)	(2.05)	(1.78)
Market-to-book	0.001***	0.001	0.001	0.001***
	(3.44)	(0.99)	(1.63)	(2.63)
# of employees			0.004***	0.001**
			(2.96)	(2.14)
# of business segments			0.001***	0.001***
			(4.89)	(4.73)
# of geographic segments			−0.001	−0.001
			(1.02)	(1.60)
Cash flow				0.014***
				(11.89)
Book leverage				0.002*
				(1.65)
Market share				−0.003
				(0.37)
(Market share)^2				−0.003
				(0.36)
Herfindahl index				0.012***
				(3.47)
Year and industry dummies	No	Yes	Yes	Yes
Number of observations	51,609	51,236	49,616	48,488
Pseudo R-squared	0.026	0.108	0.115	0.136

Panel D: Performance of politically sensitive stocks and non-politically sensitive stocks

	Raw returns (1)	Five-factor alphas (2)	DGTW-adjusted alphas (3)
Politically sensitive stocks	0.11%	0.19%	0.24%
	(0.22)	(0.90)	(1.25)
Non-politically sensitive stocks	−0.17%	0.07%	0.01%
	(0.36)	(1.02)	(0.16)
Difference (P–N)	0.29%	0.13%	0.24%
	(0.41)	(0.56)	(1.18)

Table 3: Summary statistics on hedge funds' trading and portfolio holdings in politically sensitive stocks

The table reports summary statistics on the fraction of trading volume done by hedge fund managers in politically sensitive stocks and their portfolio weights in politically sensitive stocks partitioned by whether the hedge fund has a connection with lobbyists. We measure hedge fund trading volume at a quarterly frequency by assuming that hedge funds do not trade intra-quarterly between two consecutive quarterly reports and the changes in holdings during a quarter occur only at the end of the quarter. For each fund-quarter, we calculate the fraction of trading volume in politically sensitive stocks as the dollar trading volume of the fund in politically sensitive stocks divided by the total dollar trading volume of the fund in the quarter. Similarly, we calculate for each fund-quarter the portfolio weight in politically sensitive stocks as the dollar holdings of politically sensitive stocks divided by the total dollar holdings of the fund at the quarter-end. Following Hong and Kostovetsky (2010), we adjust the trading fraction and the portfolio weight by running cross-sectional regressions of the raw measures on *Mean component log size* and *mean component log B/M* and assigning each observation the residual from these regressions. Panels A and B report the statistics for the raw measures and the residual measures, respectively. Columns 1 and 2 divide the sample of all fund-quarters into two groups based on whether the hedge fund has a connection with lobbyists in the year. Columns 4 and 5 divide the sample of fund-years for funds having a connection with lobbyists in any of the sample years into two groups based on whether the fund has a lobbyist connection in that year. We report both mean and median (in square brackets) of the trading fractions and portfolio weights. We use *t*-test (for means) and Wilcoxon signed-rank test (for medians) to examine for significant differences between connected and non-connected funds. Numbers in parentheses are *p*-values. Significance on a 10% (*), 5% (**), or 1% level (***) is indicated.

Panel A: All fund/quarters

	Connected fund/qtrs	Non-connected fund/qtrs	Difference (C−NC)
Raw fraction of trading volume in political stocks	6.25%	5.60%	0.65% (1.57)
Raw portfolio weight in political stocks	5.74%	5.42%	0.32% (0.85)
Residual fraction of trading volume in political stocks	0.71% (1.49)	−0.03% (0.35)	0.73% (1.85)*
Residual portfolio weight in political stocks	0.46% (1.18)	−0.02% (0.25)	0.48% (1.30)

Panel B: Fund/quarters for funds that are connected at some point during the sample period

	Connected fund/qtrs	Once-connected funds in non-connected qtrs	Difference (C−NC)
Raw fraction of trading volume in political stocks	6.25%	5.03%	1.21% (2.14)**
Raw portfolio weight in political stocks	5.74%	5.48%	0.26% (0.49)
Residual fraction of trading volume in political stocks	0.71% (1.49)	−0.46% (1.70)*	1.17% (2.13)**
Residual portfolio weight in political stocks	0.46% (1.18)	0.13% (0.42)	0.31% (0.58)

Table 4: Regression of trading and portfolio holdings in politically sensitive stocks on connectedness

The table reports regression analysis of the fraction of trading volume done by hedge fund managers in politically sensitive stocks and their portfolio weights in politically sensitive stocks. The dependent variables are *Residual trading fraction* and *Residual portfolio weight* adjusted for size and value effects as described in Table 3. *Connected* is an indicator variable that equals one if the fund has a lobbyist connection in the year considered and zero otherwise. All other independent variables are defined in Table 1. Columns 1 and 4 report regression results for the full sample of all fund-quarters. Columns 2 and 5 report regression results for the sample of fund-quarters that can be matched to TASS database. Columns 3 and 6 report regression results for the sample of funds that can be matched to TASS database and having a connection with lobbyists at some point during the sample period. Numbers in parentheses are robust *t*-statistics. Significance on a 10% (*), 5% (**), or 1% level (***) is indicated.

Dependent Var. =	Residual trading fraction			Residual portfolio weight		
	(1)	(2)	(3)	(4)	(5)	(6)
Connected	0.011**	0.010**	0.010*	0.007*	0.003	0.010
	(2.16)	(2.02)	(1.76)	(1.66)	(0.58)	(1.53)
Log(portfolio size)	0.001	−0.002	−0.001	0.002***	0.001	0.003
	(0.80)	(1.46)	(0.26)	(3.10)	(0.47)	(0.80)
Portfolio turnover	0.002	0.001	−0.001	0.006***	0.008**	0.020**
	(0.81)	(0.20)	(0.03)	(2.97)	(2.46)	(2.12)
Portfolio concentration	0.012***	0.009***	0.004	0.012***	0.010***	0.006*
	(9.36)	(5.55)	(1.41)	(11.33)	(6.79)	(1.83)
Minimum invest		0.001***	0.001***		0.001***	0.001***
		(3.44)	(2.78)		(6.29)	(2.98)
Management fee		−0.004**	0.014		−0.005**	0.004
		(2.22)	(1.29)		(2.49)	(0.35)
Incentive fee		0.001**	0.002**		0.001	0.001
		(2.03)	(2.24)		(0.82)	(1.30)
High-water mark		0.006*	−0.023		0.005	0.001
		(1.82)	(0.95)		(1.30)	(0.04)
Redemption notice period		0.001	0.001**		0.001	0.001**
		(0.46)	(2.32)		(0.44)	(2.37)
Lock-up period		0.001	0.001		0.001	0.001
		(0.38)	(0.85)		(1.54)	(0.86)
Constant	0.044***	0.065***	−0.031	0.009	0.025	−0.104
	(2.87)	(2.88)	(0.34)	(0.68)	(1.02)	(1.16)
Observations	7,808	3,234	412	7,803	3,232	412
Adjusted R-squared	0.03	0.04	0.09	0.04	0.05	0.08

Table 5: Calendar time portfolio returns of connected vs. non-connected hedge funds investing in politically sensitive vs. non-politically sensitive stocks

The table reports calendar time portfolio returns. At each quarter-end during 1999-2008, we assign stocks in each hedge fund portfolio to one of the two by two matrix of portfolios formed by hedge fund-lobbyist connections and political sensitiveness of stocks. We then track the monthly performance of these four portfolios over the following three months and rebalance thereafter. Stocks in the portfolios are weighted by their dollar value of holdings by the hedge funds. We calculate the monthly value-weighted portfolio returns on the four portfolios by assuming that hedge funds do not change their holdings intra-quarterly. Panel A reports the five-factor alphas and the DGTW characteristics-adjusted abnormal returns of the four portfolios using the full sample of all fund-quarters. Panel B reports the same results for the subsample of funds that are connected at some point during the sample period. Panel C reports the same results for connected funds and a propensity-score matched sample of non-connected funds in the same quarter based on fund size, trading and holdings behavior in political stocks. Numbers in parentheses are t-statistics. Significance on a 10% (*), 5% (**), or 1% level (***) is indicated.

Panel A: All fund/quarters

	Connected fund/qtrs		Non-connected fund/qtrs		Difference (C−NC)	
	Five-factor alpha	DGTW-adjusted	Five-factor alpha	DGTW-adjusted	Five-factor alpha	DGTW-adjusted
Politically sensitive stocks	1.44%	1.61%	0.34%	0.39%	1.10%	1.21%
	(3.69)***	(4.23)***	(1.51)	(1.94)*	(2.52)**	(2.90)***
Non-politically sensitive stocks	−0.34%	−1.18%	0.19%	0.14%	−0.53%	−1.32%
	(0.69)	(1.47)	(2.34)**	(1.79)*	(1.09)	(1.68)*
Difference (P−NP)	1.78%	2.79%	0.15%	0.26%	1.63%	2.54%
	(2.83)***	(3.08)***	(0.62)	(1.17)	(2.50)**	(2.82)***

Panel B: Fund/quarters for funds that are connected at some point during the sample period

	Connected fund/qtrs		Once-connected funds in non-connected qtrs		Difference (C−NC)	
	Five-factor alpha	DGTW-adjusted	Five-factor alpha	DGTW-adjusted	Five-factor alpha	DGTW-adjusted
Politically sensitive stocks	1.44%	1.61%	−0.06%	−0.03%	1.50%	1.63%
	(3.69)***	(4.23)***	(0.14)	(0.07)	(2.61)**	(3.19)***
Non-politically sensitive stocks	−0.34%	−1.18%	0.19%	0.09%	−0.53%	−1.27%
	(0.69)	(1.47)	(1.42)	(0.55)	(1.07)	(1.59)
Difference (P−NP)	1.78%	2.79%	−0.25%	−0.11%	2.02%	2.90%
	(2.83)***	(3.08)***	(0.57)	(0.30)	(2.68)***	(3.03)***

Panel C: Propensity score-matched sample

	Connected fund/qtrs		Matched non-connected fund/qtrs		Difference (C−NC)	
	Five-factor alpha	DGTW-adjusted	Five-factor alpha	DGTW-adjusted	Five-factor alpha	DGTW-adjusted
Politically sensitive stocks	1.44%	1.61%	0.34%	0.23%	1.10%	1.38%
	(3.70)***	(4.24)***	(0.66)	(0.53)	(1.70)*	(2.37)**
Non-politically sensitive stocks	−0.53%	−1.31%	0.48%	0.22%	−1.01%	−1.53%
	(1.10)	(1.59)	(1.57)	(1.14)	(1.78)*	(1.81)*
Difference (P−NP)	1.97%	2.92%	−0.14%	0.01%	2.11%	2.91%
	(3.18)***	(3.20)***	(0.24)	(0.02)	(2.45)**	(2.83)***

Table 6: Determinants of connected hedge funds' outperformance in politically sensitive stocks

The table reports the abnormal returns of politically sensitive stocks held by connected fund managers partitioned by various stock characteristics. Panel A partitions our sample of politically sensitive stocks into two groups based on whether the stock lobbies for the same issues as the lobbyists hired by the hedge fund holding the stock. Related political holdings by a connected fund are politically sensitive stocks in the fund's portfolio that lobby for the same issues as the lobbyists hired by the hedge fund under consideration, and unrelated political holdings are otherwise. Panel B partitions our sample of political stocks into two groups based on the median number of connected funds holding the stock at the end of each quarter. Non-competitive political stocks are those that are held by less than the median number of connected fund managers, whereas competitive political stocks are those that are held by more than the median number of connected fund managers. Panel C partitions our sample of political stocks into two groups based on the median number of analysts covering the stock at the end of each quarter. Opaque political stocks are those that are covered by less than the median number of analysts, whereas transparent political stocks are those that are covered by more than the median number of analysts. We track the monthly performance of all portfolios over the following three months and rebalance thereafter. For each portfolio, we report the five-factor alphas and the DGTW characteristics-adjusted returns. The last two rows in each panel report the difference in performance between each pair of portfolios. Numbers in parentheses are *t*-statistics. Significance on a 10% (*), 5% (**), or 1% level (***) is indicated.

	Five-factor alpha	DGTW-adjusted
Panel A: Partitioned by whether firms and hedge funds' lobbyists have common lobbying issues		
Related (firms and lobbyists share common lobbying issues)	1.52%	1.68%
	(3.36)***	(3.83)***
Unrelated (firms and lobbyists have different lobbying issues)	0.58%	0.84%
	(1.05)	(1.67)*
Outperformance (Related – Unrelated)	0.94%	0.84%
	(1.32)	(1.25)
Panel B: Partitioned by competitiveness among connected fund managers		
Non-competitive (# of connected ≤ median)	2.12%	2.35%
	(3.61)***	(4.37)***
Competitive (# of connected > median)	0.36%	0.57%
	(1.08)	(1.35)
Outperformance (Non-competitive – Competitive)	1.75%	1.91%
	(2.51)**	(2.96)***
Panel C: Partitioned by analyst coverage		
Opaque (# of analysts ≤ median)	1.67%	2.04%
	(3.44)***	(4.33)***
Transparent (# of analysts > median)	0.96%	1.19%
	(1.98)**	(2.32)**
Outperformance (Opaque – Transparent)	0.72%	0.85%
	(1.05)	(1.22)

Table 7: Political bias and outperformance of connected hedge funds in politically sensitive stocks

The table reports the abnormal returns of politically sensitive stocks held by connected fund managers partitioned by political bias. We use two measures to capture a connected fund's political bias: the fraction of trading volume in politically sensitive stocks and the portfolio weight in politically sensitive stocks. Connected fund managers with a higher than the median bias in trading (holdings) are defined as high trading (holding) bias funds, and those with a lower than the median bias in trading (holdings) are low trading (holding) bias funds. We track the monthly performance of high and low bias funds' portfolios of politically sensitive stocks over the following three months and rebalance thereafter. Panel A partitions our sample of connected funds into two groups based on the median trading fraction in political stocks. Similarly, Panel B partitions our sample of connected funds into two groups based on the median portfolio weight in political stocks. For each portfolio, we report the two measures of political bias, the five-factor alphas and the DGTW characteristics-adjusted returns. The last two rows in each panel report the difference in performance between high- and low-bias portfolios. Numbers in parentheses are t-statistics. Significance on a 10% (*), 5% (**), or 1% level (***) is indicated.

	Trading fraction	Portfolio weight	Five-factor alpha	DGTW-adjusted
Panel A: Partitioned by the fraction of trading volume in political stocks				
High trading bias	9.96%	7.61%	1.58%	1.52%
			(3.96)***	(3.91)***
Low trading bias	2.20%	3.56%	−0.99%	−1.11%
			(0.88)	(1.02)
Outperformance (High – Low)			2.57%	2.63%
			(2.35)**	(2.27)**
Panel B: Partitioned by portfolio weights in political stocks				
High holding bias	8.80%	9.06%	1.63%	1.51%
			(4.13)***	(3.88)***
Low holding bias	3.58%	1.84%	−0.79%	−1.07%
			(0.70)	(1.03)
Outperformance (High – Low)			2.42%	2.58%
			(2.24)**	(2.32)**

Table 8: Connected funds and unusual trading activity in stocks affected by asbestos lawsuits

The table reports the regression analysis of suspicious equity trading activity in asbestos-affected companies. The dependent variables are unusual trading volume (in the first two columns) and unusual stock returns (in the last two columns) in a three-day window immediately preceding November 16, 2005 when Senate Majority Leader Bill Frist promised a full Senate vote on a bailout bill to create a $140 billion public trust fund for asbestos liability claims. We use the conditional variant of Acharya and Johnson (2009) to measure unusual trading volume and stock returns. Specifically, we first regress volume and returns on a constant, lagged volume and returns, day-of-week dummies, contemporaneous volume and return for market index using daily data for a three month period preceding the event. We then construct two measures to capture suspicious trading activity. *Max* is the maximum of the daily standardized residuals from the above regressions during the three trading days before the event. *Sum* is the sum of the positive standardized residuals during the same three-day period. *# of connected funds* (*# of non-connected funds*) is the number of connected funds (non-connected funds) at the most recent quarter end before the event, i.e. September 31, 2005. *Firm size* (natural logarithm of total assets), *market-to-book*, and *book leverage* are measured at the most recent quarter end. *Return volatility* is the standard deviation of monthly returns in the past 12 months ending September 30, 2005. *Market beta* is the beta with respect to the CRSP value-weighted index using daily data in the three-month period before the event (skipping the month immediately before the event). *Illiquidity* is the Amihud illiquidity ratio of the stock. *Turnover* is the annualized volume in shares divided by shares outstanding in the three-month period preceding the event. The last row reports the *F*-test statistics for the null hypothesis that the coefficient on *# of connected funds* (c_1) and the coefficient on *# of non-connected funds* (c_2) are equal. Numbers in parentheses are *t*-statistics. Significance on a 10% (*), 5% (**), or 1% level (***) is indicated.

	Trading volume		Stock return	
	Max	Sum	Max	Sum
# of connected funds (c_1)	0.216	0.291*	0.290**	0.387***
	(1.62)	(1.71)	(2.62)	(3.00)
# of non-connected funds (c_2)	−0.026*	−0.020	−0.032***	−0.043***
	(1.86)	(1.32)	(2.69)	(2.87)
Firm size	0.114	0.012	0.158	0.212
	(0.95)	(0.08)	(1.28)	(1.38)
Market-to-book	−0.119	−0.177	−0.036	−0.030
	(0.44)	(0.59)	(0.14)	(0.10)
Book leverage	−0.799*	−1.052*	−0.492	−0.798
	(1.71)	(1.71)	(1.13)	(1.45)
Return volatility	−0.196	−0.195	−0.956***	−1.171***
	(0.96)	(0.67)	(3.45)	(3.22)
Market beta	−3.890	−5.424	4.895	6.327
	(0.96)	(1.01)	(1.35)	(1.35)
Illiquidity	0.087	0.068	−0.034	0.037
	(1.18)	(0.71)	(0.43)	(0.36)
Turnover	0.185	0.147	0.197**	0.218**
	(1.64)	(1.14)	(2.47)	(2.44)
Constant	0.252	2.268	−0.252	−0.385
	(0.16)	(1.04)	(0.15)	(0.18)
Number of observations	68	68	68	68
R-squared	0.09	0.08	0.21	0.25
F-test ($c_1 = c_2$)	2.88*	3.03*	7.53***	9.68***

Table 9: Tests of the influence hypothesis: Do connected funds use their political influence to trade profitably?

The table reports the abnormal returns of politically sensitive stocks held by connected fund managers partitioned by stock and fund characteristics. Panel A partitions our sample of politically sensitive stocks into two groups based on whether the stock is affected by the lobbying issues pursued by a particular hedge fund. Affected political holdings by a connected fund are politically sensitive stocks in the fund's portfolio that lobby for the same issues as the fund under consideration, and unaffected political holdings are otherwise. Panel B partitions our sample of politically sensitive stocks into two groups based on the median Amihud (2002)'s illiquidity ratio in each quarter. Illiquid political holdings by a connected fund are politically sensitive stocks with an Amihud illiquidity ratio higher than the median, and liquid political holdings are otherwise. We track the monthly performance of all portfolios over the following three months and rebalance thereafter. For each portfolio, we report the five-factor alphas and the DGTW characteristics-adjusted returns. The last two rows in each panel report the difference in performance between each pair of portfolios. Numbers in parentheses are t-statistics. Significance on a 10% (*), 5% (**), or 1% level (***) is indicated.

	Five-factor alpha	DGTW-adjusted
Panel A: Partitioned by whether firms and hedge funds have common lobbying issues		
Affected (firms and hedge funds share common lobbying issues)	0.78%	0.95%
	(1.68)*	(2.23)**
Unaffected (firms and hedge funds have different lobbying issues)	1.51%	1.62%
	(3.78)***	(4.16)***
Outperformance (Affected – Unaffected)	−0.73%	−0.67%
	(1.20)	(1.16)
Panel B: Partitioned by stock liquidity		
Illiquid (Amihud illiquid > median)	1.17%	1.21%
	(2.67)***	(2.70)***
Liquid (Amihud illiquid ≤ median)	1.10%	1.53%
	(2.40)**	(3.42)***
Outperformance (Illiquid – Liquid)	0.07%	−0.32%
	(0.11)	(0.51)

Table 10: Calendar-time portfolio returns of connected vs. non-connected hedge funds investing in politically sensitive vs. non-politically sensitive stocks: Robustness checks

The table reports calendar time portfolio returns for various robustness tests. We report the difference-in-differences estimate of the five-factor alphas of the four portfolios formed by lobbyist connections and political sensitiveness. Panel A reports the difference-in-differences estimate of five-factor alpha when we use congressional sensitivity (at the industry level) to identify politically sensitive stocks. Panel B report the difference-in-differences estimate of five-factor alpha when we split the sample period into two subperiods of equal length, i.e., from 1999 to 2003 and from 2004 to 2008. Panel C report the difference-in-differences estimate of five-factor alpha when we split the three-month holding period into two subperiods based on whether hedge funds' 13F holdings reports are made public. Since hedge funds typically file their 13F reports on the due date, which is 45 days after the end of the quarter, we split the sample period into a pre-filing period (the first 45 days after the quarter-end) and the post-filing period. Numbers in parentheses are *t*-statistics. Significance on a 10% (*), 5% (**), or 1% level (***) is indicated.

	Diff-in-diff estimate of five-factor alpha	
A. Using congressional sensitivity to identify political stocks	1.41%	(1.76)*
B. Split sample into two equal subperiods		
1999-2003	3.36%	(2.43)***
2004-2008	0.64%	(1.67)*
C. Split the holding period into pre- and post-filing subperiods		
Pre-filing period/within 45 days of quarter-end	3.37%	(3.55)***
Post-filing period/after 45 days of quarter-end	0.66%	(0.65)