

Insider Trading on K-Street: Are Politicians Informed Traders?

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May 17, 2011

Abstract

I investigate whether politicians take advantage of their privileged information that comes with their positions in power. Analyzing the trading records of Congressional members, I find that informed trades beat the market by 8.2%. As these gains accrue over the short term, my findings are suggestive of informed trading based on time-sensitive information.

1 Introduction

Politicians are mandated to create and shape future legislation. Therefore, they are privy to valuable information about policies that affect firms. This information comes in various forms. Above all, politicians have advance knowledge about upcoming regulations, earmarks, and tax credits. Additionally, they may have superior information about firms through interactions with industry lobbyists. In fact, hedge funds now consider Washington to be a gold-mine of market-moving information¹. Trading based on this information would certainly give politicians distinct advantage over an average investor.

Despite the potential for exploitation, Congressional members are generally free to invest in companies they help oversee. In addition, existing insider-trading laws do not apply to lawmakers. Probably to no one's surprise, proposed bills to eliminate insider trading among Congressional members garnered little support on Capitol Hill.

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¹ Refer to the article titled "Hedge Funds Hire Lobbyists to Gather Tips in Washington" in The Wall Street Journal Dec. 8, 2006.

My research investigates whether members of Congress in fact make use of their information advantage. I identify informed trades based on committee memberships. As committees are intimately involved in the process of bill passage, committee membership provides a parsimonious link between a politician and any inside information that affects relevant industries.

Using their portfolio holdings, I find a 2% difference in returns between informed and uninformed stocks. Detailed analysis of their trading behaviour reveals that value-weighted portfolios of informed trades outperform the market by 8.2% in the following month, while portfolios of uninformed trades yield negative abnormal returns. Furthermore, the gains accrue over a short horizon, indicative of time-sensitive insider information. This finding is consistent with a recent observation made by the Wall Street Journal:

Rep. Henry E. Brown sits on the highways and transit subcommittee of the House transportation and infrastructure committee. On Jan. 23, 2009, three days before the administration's economic-stimulus package was introduced on the House floor, Rep. Brown bought shares of Caterpillar Inc., a maker of heavy-construction equipment that benefits from government spending on infrastructure projects. Rep. Brown sold the shares on Sept. 20 for an estimated gain of 39%. (*Wall Street Journal*, 17 June 2010, C1)

2 Literature

The first study to investigate returns to common stock investments made by US senators is done by Ziobrowski et al (2004). Using data from 1993 to 1998, they find that a portfolio that mimics senators' purchases could beat the market by as much as 10% annually. They interpret the results as strong evidence of insider trading, although it is unclear whether such high returns were achieved through unique political positions of senators. In contrast to Ziobrowski et al (2004), Eggers and Hainmueller

(2011) find that members of Congress underperformed the market during 2004 and 2008. Even transactions on politically connected stocks were not well timed, and therefore probably did not contain non-public time-sensitive information.

This paper is closely related to the literature on insider trading. Similar to corporate insiders, members of Congress are also informed traders when they trade stocks subject to private information. A large body of the insider trading literature² assesses how informative insider trading is for future returns, based on various filtering rules. Cohen, Malloy and Pomoroski (2010) use an innovative strategy and identify informed trades based on behaviours of individual insiders. In general, trades of corporate insiders reveal information about future profitability. One potential source of information they have is in terms of R&D, as documented in Aboody and Lev (2000). Taking a portfolio perspective, Jeng, Metrick, and Zeckhauser (2003) also show that insiders earn significant abnormal returns.

My research also relates to the literature that evaluates investment performance of individual investors. Individual investors earn negative abnormal returns on average (as in Odean, 1999; Barber and Odean, 2000) but could profit from a subset of stocks in their portfolio due to private information (as in Ivkovic and Weisbenner, 2005). Similarly, mutual fund managers have been shown to have informational advantage on a subset of their investments (see Coval and Moskowitz, 2001; Cohen, Frazzini, and Malloy, 2008).

² Refer to Seyhun (1998) for an extensive review.

3 Data

3.1 Financial Investment Data

The primary data of my study is drawn from the financial disclosure statements filed by Congress members during 2004-2008³. As required by the Ethics and Government Act of 1978, members of Congress must submit a Financial Disclosure Statement by May 15 each year, reporting their household's year-end assets and transactions during the previous year, among other things. To test whether members of Congress took advantage of insider information, I focus on evaluating the performance of their investments in publicly listed common stocks, and manually match each entry with returns data from CRSP. Using information on year-end positions and transactions during the year, I can reconstruct daily portfolios for each politician, adjusting for changes in security prices.

3.2 Informed vs Uninformed Investments

To identify the subset of informed trades, I construct a measure that connects a politician's committee jurisdiction to related industries based on lobbying expenses. The idea is that if Industry X lobbied Committee A heavily, Committee A must have legislative power over firms in Industry X. Members on Committee A can potentially earn higher returns from investments in industries within their mandate.

Each committee is delegated to review bills under its jurisdictional scope. As each bill can be linked to firms' lobbying expenditures, I can assign the total lobbying expenses associated with each industry⁴ across different committees⁵. Using lobbying reports that disclose how much each firm spent and which

³ The wealth of information from these reports is collected, screened, standardized and supplemented by The Center for Responsive Politics (CRP) from the Senate Office of Public Records and the Office of the Clerk of the House. The data covers the years 2004 to 2008 and is made available through OpenSecrets.org.

⁴ Firms are aggregated into industries using the Fama-French 49 industry classification.

⁵ I assume that the total expense is split evenly across bills, and that the expense on a bill is split evenly across relevant committees.

bills they focused their lobbying efforts on, I can then form the top 10 committees that each industry focuses its lobbying efforts on.

There are certain cases that need to be excluded:

1. Industries⁶ that have little lobbying activity;
2. Cases in which firms spent large sums on issues related to its business, but not the industry in general⁷.

Three sets of data are used in the process, including the committee assignment data made available by Charles Stewart⁸, the lobbying expenditure data from required filings, and the bills data made available by E. Scott Adler and John Wilkerson⁹.

3.3 Summary Statistics

Table I summarizes the value and number of holdings and transactions, averaged across years for each politician. During the 2004-2008 period, 437 members held or traded stocks. A politician holds on average 24 stocks, and makes 15 purchases and 18 sales each year. The median levels are significantly lower, at 5 holdings, 1 purchase and 1 sale per year. The average value of the holdings is over \$1 million, while transaction values are on average close to half a million. The median value of holding is \$122,904, while the median value of purchase (sale) is \$4,000 (\$20,000). There is much variation in terms of investments and trading behaviour across politicians.

⁶ Such industries include those for which lobbying expense and lobbying expense per market cap are ranked at the bottom 10, as well as those with fewer than 3 lobbying firms.

⁷ For example, Sara Lee Corporation lobbied the House Financial Services committee regarding its accounting practices; however, this committee is not related to the food industry in general. I exclude a committee from the top 10 list for an industry if fewer than 30% of firms that lobbied are related to this committee.

⁸ Refer to Charles Stewart's Congressional Data page http://web.mit.edu/17.251/www/data_page.html#1 for more details.

⁹ Refer to the US Congressional Bills Project website <http://congressionalbills.org> for more details.

4 Preliminary results

4.1 Portfolio Choice

I first explore whether politicians tilt their portfolios towards stocks they hold an information advantage. For this analysis, I compare a politician's portfolio with two passive benchmarks and see whether the relative weightings of the portfolio deviate from market benchmarks.

The first benchmark is simply the value-weighted market portfolio based on all stocks in the CRSP universe. I group stocks based on Fama-French 49 industries classification and construct portfolio weights at industry level. If the investment behaviour of politicians is similar to an average individual investor, it is more appropriate to a benchmark that takes into consideration individual investors' preferences. Therefore, the second benchmark is based on the total holdings of individual investors in the stock market. I use institutional ownership¹⁰ to infer the holdings of individual investors.

Table II shows that politicians do not invest disproportionately in industries that they have information advantage. This finding is consistent for both of the overweight measures, as well as for specifications that include politician fixed effects.

4.2 Investment Return

Next I examine portfolio returns to members of Congress using a standard calendar time portfolio approach. Table III Panel A shows abnormal returns with respect to the overall portfolio. In general, politicians do not appear to make good investment choices. An average member's stock holdings portfolio underperforms the market by 4% annually. Taking the Congress as a whole, the value-weighted

¹⁰ Institutional ownership is calculated based on 13-F filings data from Thomson Reuters CDA/Spectrum database.

portfolio underperforms the market by nearly 10% annually. The losses are most likely from high-value investments, since the equally weighted portfolio does significantly better.

Does this mean politicians do not take advantage of insider information? Not necessarily. Panel B of Table III reveals that their investments on stocks they potentially have superior information outperform the rest of their portfolio. For an average member, a portfolio that longs informed stocks and short uninformed stocks could earn an abnormal return of 2-3% annually. In terms of magnitude, the return difference between informed and uninformed stocks is even higher if considering all investments made by members of Congress on a value-weighted basis.

4.3 Trading Profits

I motivate the analysis of individual trades by pointing out two characteristics associated with information. First, information is often time sensitive. Second, information often has a qualitative interpretation (i.e., good vs bad news). The timing of a transaction helps identify the time sensitivity of their informational advantage, while the type of transaction (i.e., purchase vs sale) narrows down the type of information.

I construct calendar time portfolios based on Congressional members' transactions. Each time a purchase (sale) is made, I put the stock in the buy (sell) portfolio and hold for a fixed period of time (one-month, six-month, and one-year). Transaction values are capped at 250K to alleviate the dominance of extremely large trades. Then I calculate the abnormal return to each portfolio by regressing monthly portfolio returns on various factors.

Based on the measure detailed in Section 3, I group trades into informed and uninformed portfolios. A politician may make negative alpha on his overall portfolio, just like many other individual investors.

However, he can achieve superior returns on stocks that he has insider information about, while losing on others.

Table IV - VI show abnormal return estimates and corresponding t-values. L/S means long informed stocks and short uninformed stocks.

Table IV Panel A presents results on abnormal returns to value weighted portfolios, where each transaction is weighted by its dollar value. At one-month window, a value-weighted portfolio that mimics transactions of informed stocks (long informed buys and short informed sells) outperforms the market by an annualized return of 5.8% (column 7). In contrast, a portfolio that follows uninformed trades makes slightly negative but not statistically significant returns (column 8). The difference between these two portfolios is positive and significant (column 9).

The return difference is largely driven by purchases. Informed buys outperform uninformed buys by over 10% annually (column 3). If an investor could observe politicians' transactions real time, merely following informed purchases and hold for one month can generate annualized return of 8% (column 1). To put my results into perspective, Jeng et al. (2003) use similar methodology and find that corporate insiders earn abnormal returns of 6% annually on purchases but do not earn significant abnormal returns on sales.

Table V and Table VI show results for longer horizons (6 months and 1 year). Over time, returns to informed portfolios gradually diminish. This finding is in strong contrast with previous papers. Both Ziobrowski et al (2004) and Eggers and Hainmueller (2011) find superior returns only at a one-year horizon, while I show evidence of trading profits materializing within a short period of one month, which is indicative of time-sensitive insider information.

Panel B presents results on abnormal returns to equally weighted portfolios, where each transaction is weighted equally. For equally weighted portfolios, informed trades and uninformed trades yield similar returns. One reason could be that small trades do not contain much information.

Panel C presents results on average member portfolios, where each trade is value-weighted within a member's portfolio and returns to each member's portfolio are equally-weighted across members. For average member portfolios, the signs are consistent with value-weighted portfolios but the magnitudes are reduced by about half. If only a subset of politicians engage in insider trading, one would expect returns on average member portfolios to be lower than returns on value-weighted portfolios.

4.4 Discussion

Overall, the analysis of trades and portfolio holdings suggest that their insider information is related to good news, as their short-term gains are largely related to purchases. Good news may be in the form of discretionary bill passage, such as the approval a large earmark¹¹. In general, information about good news should exhibit little noise, as discretionary spending proposals are often passed with little (or no) debate¹². Even when these discretionary bills are vetted through Congress, a larger proportion of them will be passed relative to bills regarding governing issues and regulation (Adler and Wilkerson, 2010). Furthermore, these discretionary policies are often not disclosed in significant detail¹³; consequently, there should be a small chance of getting noticed using this information.

¹¹ For example, consider the \$1.3T "omnibus" bill (<http://www.cbsnews.com/stories/2010/12/14/politics/main7149628.shtml?tag=contentMain;contentBody>).

¹² Refer to <http://www.aim.org/aim-column/will-mccain-oppose-845-billion-earmark/> for more details.

¹³ Refer to <http://www.nationalreview.com/corner/128585/boehner-earmark-reform-bill-just-passed/kathryn-jean-lopez> for more details.

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Table I: Annual Average Holdings and Transactions of Member of Congress

	Holdings		Transactions			
	\$ Value	Number	Buys		Sells	
			\$ Value	Number	\$ Value	Number
Min	0	0	0	0	0	0
25th Percentile	28,251	2	0	0	0	0
Median	122,904	5	4,000	1	20,001	1
75th Percentile	514,022	22	73,503	5	121,835	5
Max	128,000,000	495	54,800,000	836	64,000,000	774
Mean	1,824,947	24	410,761	15	514,548	18

Table II: Portfolio Choice

	(1)	(2)	(3)	(4)
	Overweight1	Overweight1	Overweight2	Overweight2
Informed	-0.00082	-0.00095	-0.00024	-0.00028
	-0.74	-0.74	-0.22	-0.22
Constant	0.00037	0.00042	0.00011	0.00013
	0.74	0.74	0.22	0.22
N	72150	72150	72150	72150
Fixed effect	No	Yes	No	Yes

Table III: Holdings-Based Calendar-Time Portfolios

Panel A: All Stocks

	value weighted	average member	equal-weighted
CAPM alpha	-0.0083*** -2.59	-0.0031* -1.90	0.0020*** 2.61
Fama-French alpha	-0.0088*** -2.73	-0.0040** -2.54	0.0017*** 2.75
Carhart alpha	-0.0059* -1.95	-0.0020 -1.56	0.0024*** 4.66

Panel B: Informed vs Uninformed Portfolios

	value weighted			average member			equal-weighted		
	Informed	Uninformed	L/S	Informed	Uninformed	L/S	Informed	Uninformed	L/S
CAPM alpha	-0.0048*** -3.72	-0.0107** -2.08	0.0059 1.30	-0.0011 -1.02	-0.0036** -2.02	0.0024* 1.76	0.0024*** 3.39	0.0014 1.44	0.0010 1.27
Fama-French alpha	-0.0050*** -4.05	-0.0114** -2.18	0.0063 1.35	-0.0016 -1.52	-0.0045*** -2.65	0.0028** 2.11	0.0022*** 4.00	0.0010 1.15	0.0012 1.51
Carhart alpha	-0.0042*** -3.43	-0.0068 -1.38	0.0026 0.57	-0.0006 -0.59	-0.0024* -1.71	0.0018 1.41	0.0025*** 4.32	0.0023*** 3.63	0.0001 0.22

**Table IV: Transactions-Based Calendar-Time Portfolios
held for 21 trading days**

Panel A: Value-Weighted									
	buys			sells			buys-sells		
	Informed (1)	uninformed (2)	L/S (3)	Informed (4)	uninformed (5)	L/S (6)	Informed (7)	uninformed (8)	L/S (9)
CAPM alpha	0.0068**	-0.0033	0.0102***	0.0020	0.0001	0.0020	0.0048*	-0.0034	0.0082*
	2.53	-0.83	2.57	0.75	0.02	0.71	1.85	-0.91	1.85
Fama-French alpha	0.0069***	-0.0030	0.0099**	0.0021	-0.0002	0.0023	0.0048*	-0.0028	0.0076*
	2.89	-0.77	2.45	0.83	-0.05	0.82	1.81	-0.75	1.70
Carhart alpha	0.0076***	-0.0014	0.0090**	0.0027	0.0002	0.0025	0.0049*	-0.0016	0.0065
	3.10	-0.37	2.18	1.04	0.07	0.86	1.78	-0.43	1.43

Panel B: Equal-Weighted									
	buys			sells			buys-sells		
	informed	uninformed	L/S	informed	uninformed	L/S	informed	uninformed	L/S
CAPM alpha	0.0041	0.0027	0.0013	0.0053**	0.0029	0.0023	-0.0012	-0.0002	-0.0010
	1.44	1.02	0.56	2.03	1.29	1.18	-0.51	-0.13	-0.37
Fama-French alpha	0.0042*	0.0027	0.0015	0.0052**	0.0029	0.0023	-0.0010	-0.0001	-0.0008
	1.74	1.13	0.61	2.18	1.33	1.15	-0.42	-0.09	-0.30
Carhart alpha	0.0036	0.0035	0.0001	0.0054**	0.0035	0.0019	-0.0018	0.0000	-0.0018
	1.45	1.43	0.03	2.21	1.61	0.92	-0.77	0.00	-0.66

Panel C: Average Member									
	buys			sells			buys-sells		
	informed	uninformed	L/S	informed	uninformed	L/S	informed	uninformed	L/S
CAPM alpha	0.0046	-0.0007	0.0053	0.0024	0.0004	0.0020	0.0022	-0.0011	0.0033
	1.55	-0.16	1.30	0.94	0.12	0.65	0.91	-0.40	0.88
Fama-French alpha	0.0046	-0.0001	0.0046	0.0026	0.0002	0.0023	0.0020	-0.0003	0.0023
	1.59	-0.01	1.17	1.07	0.07	0.77	0.81	-0.12	0.65
Carhart alpha	0.0037	0.0011	0.0027	0.0020	0.0009	0.0011	0.0017	0.0002	0.0015
	1.28	0.26	0.69	0.81	0.26	0.36	0.70	0.07	0.43

Table V: Transactions-Based Calendar-Time Portfolios held for 126 trading days

Panel A: Value-Weighted									
	buys			sells			buys-sells		
	informed	uninformed	L/S	informed	uninformed	L/S	informed	uninformed	L/S
CAPM alpha	0.0024	-0.0047**	0.0070**	-0.0028	-0.0033	0.0004	0.0052***	-0.0014	0.0066**
	1.17	-1.99	2.54	-1.48	-1.47	0.24	3.53	-0.64	2.20
Fama-French alpha	0.0025	-0.0044**	0.0069**	-0.0027	-0.0035	0.0008	0.0053***	-0.0009	0.0061**
	1.23	-1.96	2.54	-1.40	-1.59	0.46	3.50	-0.41	2.05
Carhart alpha	0.0025	-0.0044**	0.0069**	-0.0027	-0.0035	0.0008	0.0052***	-0.0009	0.0061**
	1.22	-1.97	2.53	-1.39	-1.60	0.48	3.49	-0.40	2.04

Panel B: Equal-Weighted									
	buys			sells			buys-sells		
	informed	uninformed	L/S	informed	uninformed	L/S	informed	uninformed	L/S
CAPM alpha	0.0010	-0.0004	0.0013	0.0008	-0.0001	0.0009	0.0002	-0.0003	0.0004
	0.52	-0.18	0.99	0.40	-0.03	0.74	0.13	-0.24	0.36
Fama-French alpha	0.0012	-0.0003	0.0015	0.0008	-0.0001	0.0009	0.0004	-0.0001	0.0006
	0.67	-0.15	1.12	0.38	-0.05	0.75	0.38	-0.12	0.47
Carhart alpha	0.0012	-0.0003	0.0015	0.0007	-0.0002	0.0009	0.0005	-0.0001	0.0006
	0.67	-0.17	1.18	0.38	-0.08	0.78	0.49	-0.11	0.47

Panel C: Average Member									
	buys			sells			buys-sells		
	informed	uninformed	L/S	informed	uninformed	L/S	informed	uninformed	L/S
CAPM alpha	0.0009	-0.0035	0.0043**	-0.0010	-0.0026	0.0016	0.0019	-0.0008	0.0027
	0.37	-1.27	2.00	-0.51	-0.82	0.70	1.21	-0.40	1.12
Fama-French alpha	0.0011	-0.0033	0.0045**	-0.0011	-0.0028	0.0018	0.0022	-0.0005	0.0027
	0.47	-1.19	2.02	-0.52	-0.86	0.76	1.41	-0.23	1.09
Carhart alpha	0.0011	-0.0034	0.0045**	-0.0011	-0.0029	0.0018	0.0022	-0.0005	0.0027
	0.48	-1.26	2.01	-0.56	-0.94	0.78	1.40	-0.23	1.09

**Table VI: Transactions-Based Calendar-Time Portfolios
held for 252 trading days**

Panel A: Value-Weighted									
	buys			sells			buys-sells		
	informed	uninformed	L/S	informed	uninformed	L/S	informed	uninformed	L/S
CAPM alpha	0.0015	-0.0029**	0.0044**	-0.0003	-0.0015	0.0012	0.0017	-0.0014	0.0032
	1.17	-2.02	2.00	-0.27	-1.42	0.93	1.44	-0.79	1.30
Fama-French alpha	0.0015	-0.0026**	0.0041**	-0.0004	-0.0019	0.0015	0.0019*	-0.0007	0.0027
	1.21	-1.97	1.89	-0.44	-2.13	1.17	1.66	-0.45	1.11
Carhart alpha	0.0015	-0.0026**	0.0041*	-0.0004	-0.0019	0.0015	0.0019*	-0.0007	0.0027
	1.24	-1.96	1.91	-0.43	-2.12	1.16	1.71	-0.45	1.12

Panel B: Equal-Weighted									
	buys			sells			buys-sells		
	informed	uninformed	L/S	informed	uninformed	L/S	informed	uninformed	L/S
CAPM alpha	0.0022**	0.0010	0.0011	0.0023*	0.0016	0.0007	-0.0001	-0.0006	0.0004
	2.04	0.96	1.06	1.74	1.22	0.77	-0.12	-0.63	0.47
Fama-French alpha	0.0021**	0.0009	0.0012	0.0019	0.0012	0.0007	0.0002	-0.0003	0.0005
	2.09	0.98	1.07	1.56	1.02	0.77	0.18	-0.37	0.47
Carhart alpha	0.0021**	0.0009	0.0012	0.0020**	0.0012	0.0007	0.0002	-0.0003	0.0005
	2.36	1.26	1.06	2.10	1.37	0.77	0.19	-0.38	0.47

Panel C: Average Member									
	buys			sells			buys-sells		
	informed	uninformed	L/S	informed	uninformed	L/S	informed	uninformed	L/S
CAPM alpha	0.0023	-0.0011	0.0034	0.0015	-0.0019	0.0034	0.0008	0.0008	0.0000
	1.47	-0.57	1.62	0.91	-1.22	1.95	0.48	0.50	-0.02
Fama-French alpha	0.0022	-0.0016	0.0037*	0.0010	-0.0025	0.0035**	0.0012	0.0009	0.0002
	1.41	-0.82	1.89	0.65	-1.72	1.97	0.73	0.60	0.11
Carhart alpha	0.0022	-0.0015	0.0037*	0.0010	-0.0025	0.0035**	0.0012	0.0009	0.0002
	1.62	-0.92	1.88	0.77	-1.85	1.98	0.73	0.61	0.11