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RELIEF RALLY: SENATORS AS FECKLESS AS THE REST OF US AT STOCK PICKING

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ABSTRACT

We examine the stock trading behavior and returns of U.S. senators from 2012-March 2020. Stocks purchased by senators on average slightly underperform stocks in the same industry and size (market cap) categories by 11 basis points, 28 basis points and 17 basis points at the 1, 3, and 6-month time horizons. Stocks sold by senators underperform slightly for the first three months and then outperform slightly (a statistically insignificant 14 basis points) at the one year mark. We find no evidence that senators have industry specific stock picking ability related to their committee assignments. Neither Republican nor Democratic senators are skilled at picking stocks to buy, while stocks sold by Republican senators underperform by 50 basis points over three months. Stocks sold following the January 24th COVID-19 briefing do underperform the market by a statistically significant 9 percent while stocks purchased during this period underperform by 3 percent. Our findings contrast somewhat with recent news reports and studies of pre-STOCK Act (2012) returns, though are consistent with Eggers and Hainmueller (2013).

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Ian Van Hoek 6106 Rockefeller Dartmouth College Hanover, NH 03755 Ian.J.Van.Hoek.20@dartmouth.edu In April of 2012, the United States Congress passed the Stop Trading on Congressional Knowledge Act (STOCK Act, "the Act") which prohibits members of Congress and their staff from leveraging non-public information to make investment decisions. The Act also requires the President, Vice President, and all members of their staff to report any trades that exceed \$1,000 within 45 days of the transaction. The Act made it clear for the first time that the laws against insider trading also apply to members of Congress and their staff. This prevents them from leveraging information gleaned from their official capacities as market regulators. The Act also established additional public disclosure requirements for security trading activities of members of Congress in order to help monitor their compliance with the new insider trading laws. The Act was celebrated with great fanfare during its signing ceremony and was seen as a pivotal step in addressing public skepticism about an unequal system. As President Obama put it, the STOCK Act was meant to address a "deficit of trust" between the American people and their lawmakers.

A year after the STOCK Act was passed, the bill was quietly amended, reversing major pieces of the law. Fast-tracked using a process known as unanimous consent, the amendment repealed the mandate for congressional aides and staffers to disclose their trading activities online (Lowder and Cowan 2013). Senators and congressmen/congresswomen now have the option to disclose their trades through an electronic system or through paper filings. For members of Congress, these trades are now available on two websites (one for the House and one for the Senate).¹ Disclosures by congressional staffers are not made available by website.

Recently, the STOCK Act again made headlines when at least four senators avoided large losses by selling ahead of the COVID-19 stock market crash.² The selling took place after a

¹ <u>http://clerk.house.gov/public_disc/financial-search.aspx</u> and <u>https://efdsearch.senate.gov/search/</u>

² <u>https://www.washingtonpost.com/politics/2020/03/25/senators-dumped-stocks-amid-coronavirus-crisis-heres-what-we-know-about-congress-financial-self-interest/</u>

January 24 briefing of the Senate Health, Education, Labor and Pensions Committee on the severity of the coming COVID-19 related health crisis³. Commentators have suggested that senators frequently use their private information both to aid in stock selection and market timing. We do not find evidence that senators are successful stock pickers. Our tests for market timing (not reported here) are not particularly well powered, but we do not find evidence of market timing either; upweighting (downweighting) stock holdings in months when senators are buying (selling) leads to lower returns than a simple buy and hold strategy.

Existing research has demonstrated that prior to the passage of the STOCK Act, portfolios that mimic senators outperform the market by approximately 12 percent annually, (Ziobrowski, Cheng, Boyd, and Ziobrowski 2004) and investments by members of the U.S. House of Representatives outperform the market by approximately 6 percent annually (Ziobrowski, Boyd, Cheng, and Ziobrowski 2011). The literature supports the hypothesis that prior to the passage of the STOCK Act, members of Congress were leveraging their privileged positions in order to achieve superior financial returns. Other research finds that senators achieve positive abnormal returns by avoiding annualized losses from sold stocks of 5.4 percent (Cherry, Heitz, and Jens 2017). Analyzing the executive branch, Acemoglu et. al finds that companies with a prior connection to Timothy Geithner experienced abnormal returns of 6 and 12 percent after 1 and 12 full days of trading, which may be due to the perceived benefit of personal connections in times of financial crisis.

However, more recent literature finds no evidence of a congressional trading advantage in the years 2004-2008 (Eggers and Hainmueller, 2013). By reconstructing actual portfolios of congressmen, Eggers and Hainmueller find that the average portfolio underperformed a passive portfolio by 2-3 percent per year. It is possible that the publication of Ziobrowski, Boyd, Cheng,

³ There were numerous other related Senate briefings in Feburary.

and Ziobrowski's research in 2004 curbed congressional trading on privileged information. Eggers and Hainmueller also note that the reported 12 percent outperformance of senators in the earlier work represents only the excess return of a specific trade weighting criteria. Other possible weighting approaches do not yield economically or statistically significant results. In further research, Eggers and Hainmueller find that politicians tend to hold stocks in campaign contributors and local firms that tend to outperform; their other investments are responsible for their overall underperformance (Eggers and Hainmueller, 2014). Akey finds that when comparing firms who donate to winning and losing congressmen, firms donating to the former experience abnormal equity returns 3 percent higher than the those who donate to the unsuccessful candidate. These findings support the hypothesis that firms with political connections outperform, but does not support the hypothesis that congresspeople are otherwise skilled stock pickers.

Other research reaffirms that congressional ownership is linked to greater future business performance. Huang and Xuan (2019) find that companies with members of Congress as shareholders earn Carhart alphas of 9.5 percent per year and were more likely to be acquired or report earnings and revenue surprises. Companies owned by congresspeople are more likely to receive government grants and contracts (Tahoun 2014). Research post STOCK Act shows that in the three years leading up to 2012, senators' financial transactions spiked, with a maximum transaction value of \$1,495,559,000 across 7,582 transactions in 2010 (Holman 2017). In 2015, three years after the passage of the STOCK Act, there was a maximum transaction value of \$337,480,000 across 2,475 transactions, demonstrating a 77 percent reduction in the nominal value of senators' trades and a 67 percent reduction in the number of transactions made by senators (Holman 2017). The evidence points to a twofold conclusion: First, the STOCK Act

significantly reduced the amount of financial activity in the Senate. Second, prior to passing the Act, senators were inclined to make many high-nominal value trades. Since passing the Act, there have been calls to further tighten the regulations on legislators' trading rights (Nagy, 2013). Legislators' financial holdings could likely influence their voting decisions.

Cohen, Diether, and Malloy (2013) find that votes from senators with significant holdings in a particular industry are predictive of future returns. They first determine whether a senator has a vested interest in a given industry based on the amount of economic activity from that industry in her state. They then label each bill as favorable or not for an industry given the voting of interested senators. Constructing a portfolio which is long firms in industries in which favorable bills have passed and short firms in industries in which unfavorable bills have passed yields four factor alpha's of 92 basis points per month.

Our paper examines the buy and hold abnormal returns of senators' picks from 2012-March of 2020. Senators' purchases underperform the industry-size benchmark at the one month, three month, and six month horizons by 11 bps, 28 bps and 17 bps respectively, but only the six month horizon impact is statistically significant. Stocks sold by senators also show little evidence of stock picking ability underperforming the industry size benchmark insignificantly at the six month level and outperforming insignificantly (14 bps) at the one year level. We confirm these results using four other benchmarks consisting of the CRSP Value Weighted index, the Daniels Greenblatt Titman Wermers (DGTW) portfolios, the Fama-French three factor model, and the Carhart four factor model. We also construct calendar time portfolios and find similar results. We do not find evidence that Senate committee assignments lead to stock picking or industry picking skills within industries that are related to the committee assignment or under the committee's purview.

I. Data and Methodology

A. Sample Construction

The STOCK Act requires all members of Congress and those running for Congress to publicly disclose their trades of \$1,000 or more online within 45 days from the transaction date. Using the United States Senate's Electronic Financial Disclosures database (efdsearch.senate.gov/) we hand-collect senators' financial transactions, logging each trade's transaction date, security, and nominal value. We include reports that stem from both electronic and paper filings. Both types of filings are known collectively as "periodic transaction reports."

We include all periodic transaction reports of both current and former senators, resulting in 1,861 periodic transaction reports. Each periodic transaction report discloses all financial transactions made by the senator, their spouse, or any of their dependent children over the last 45 days. The reported transactions span all classes of securities, public and private, including exchanges of public equities, options, bonds, private bonds, municipal bonds, mutual fund stakes, and hedge fund stakes. We record all transactions of publicly listed securities including stocks, over-the-counter stocks, stock options, bonds, index funds, and mutual funds, but exclude private and non-publicly listed securities. This paper limits the sample to publicly listed stocks for which returns are available in the CRSP database.

Table 1 shows a frequency tabulation of number of trades by year, buy versus sell, and electronic versus paper filing. These are only the trades for publicly listed common stock for which we can obtain return information on CRSP. Most years have between 400 and 700 buy trades and a similar number of sell trades. 2014 is notable for an unusual amount of trading activity and we are still looking for explanations for this phenomenon. Overall we have 4378

buys and 3881 sells. Electronic filing is rarely used in the first two years of the program (2012-2013) but becomes common thereafter.

The nominal value of each trade is reported in one of 11 buckets, each capturing a range of possible weights for the transaction. Specifically, these buckets are: 1) \$1,001 to \$15,000; 2) \$15,001 to \$50,000; 3) \$50,001 to \$100,000; 4) \$100,001 to \$250,000; 5) \$250,001 to \$500,000; 6) \$500,001 to \$1,000,000; 7) "Over \$1,000,000"; 8) \$1,000,001 to \$5,000,000; 9) \$5,000,001 to \$25,000,000; 10) \$25,000,001 to \$50,000,000; and 11) "Over \$50,000,000."

We combine (add together) transactions from the same senator on the same date in the same security. In adding, we assume that the transaction is at the low end of the range of the above buckets. Due to the small number of very large trades, we consolidate the combined trades into 5 buckets representing trades of \$1000-\$99999, \$10k-49k, 50k-99k, 100k-249k, 250k plus. We use these categories in calculating weighted returns. This methodology downweighs a handful of multi-million dollar trades but does not alter our main conclusions.

Measuring Buy and Hold Abnormal Returns

We report results for buy and hold abnormal and cumulative abnormal returns over various time periods. Buy and hold abnormal returns (BHARS) are calculated by compounding daily returns on the stock and subtracting compounded daily returns on one of three benchmarks: the CRSP Value Weighted Index, an industry size matched portfolio, and the Daniels Greenblatt Titman and Wermers size-value-momentum matched portfolio. The industry-size matched portfolio matches firms by four digit SIC codes and five quintiles of NYSE/AMEX/NASDAQ market cap using the market cap six months before the event. For the purposes of compounding, if a stock disappears from the CRSP data set for a given day, we replace its return with the return

on the benchmark. This has the effect of assuming that any money remaining in that position is reinvested in the benchmark if a stock disappears.

Our Cumulative Abnormal Returns takes a slightly different approach. We use the Wharton Research Data Services' (wrds-www.wharton.upenn.edu/) U.S. Daily Event Study tool to measure daily abnormal returns for each reported stock. The Event Study tool calculates factor loadings for each stock using pre-event window data and provides a daily abnormal return relative to either the Fama French three factor or Carhart four factor model. We then calculate (compound) cumulative abnormal returns from the daily abnormal returns. We set the period to calculate factor loadings at 200 days before our event windows of -100 to +255 days.

Our concern with this approach is that in modest sized estimation periods, many stocks have large positive or negative loadings on the Fama French factors which can lead to volatility when calculating the stock's abnormal returns relative to its FF Benchmark Portfolio. Specifically, some stocks end up with six-month cumulative abnormal returns of -230 percent or lower.

II. Results

A. Mean Buy and Hold Abnormal Returns

We show returns both graphically and in tables. Figures 1a-1c show the evolution of buy and hold abnormal returns over time. Figure 1a is for all trades while Figures 1b and 1c are for electronically reported and paper reported trades. We graph results for buy and hold returns relative to the industry-size benchmark which serves as our baseline calculation. Figure 1a shows that over the 6 month time horizon both stocks bought and stocks sold underperform slightly by about 30 basis points. During the second six-months this reverses bringing the purchases to modest outperformance and the sales to 0 outperformance. Abnormal returns are statistically insignificant throughout most of the event window.

Figures 1b and 1c show comparable graphs separated by electronically reported and paper reported trades. Electronically reported purchases have some tendency to outperform during the second six months of the period.

Table 2 reports our main results for our five methods of calculating buy and hold abnormal returns or cumulative abnormal returns. Each cell reports the mean return, the standard error and the associated t-statistic. We report returns at the 1,3,6 and 12 month time horizons.

Table 2a is for all purchases. Generally we find very little evidence for outperformance of stocks purchased. Using the CRSP value weighted index as the benchmark (row 1), stocks bought underperform by about 30 basis points at the three, six, and twelve month horizons, but only the three month effect is statistically significant. Switching to industry-size portfolios as the benchmark does not change this conclusion. One anomalous finding is that when we use the Fama French model, stocks purchased outperform at the one year level. This appears to be due in part to a few unusually high negative factor loadings (for specific stocks) in the Fama French. The finding goes away when we use the Carhart model.

Table 2b shows results for all sales. In the first row which uses the market as the benchmark, stocks sold appear to underperform slightly at all time horizons. However, this result may be in part due to the smaller size and negative momentum of stocks that senators tend to trade. When we use industry-size portfolios, DGTW portfolios, or Carhart cumulative abnormal returns, the finding of underperformance goes away.

Tables 2c (purchases) and 2d (sales) repeat the analysis but split the sample by electronic versus paper reporting of the trade. Our hypothesis was that senators would use the more arcane

paper reporting for trades where they wish to minimize scrutiny. We expected paper trades to outperform electronic trades. Tables 2c and 2d do not support this hypothesis. Abnormal returns are very modest whether we look at paper or electronic purchases. One mild exception is that electronically reported buys outperform by 83 bps at the one year level (using industry size adjustment). This result goes the "wrong way" from our hypothesis. We have a similar finding for sales in Table 2d. Using industry-size adjustment, stocks sold underperform modestly in cases of electronic reporting. This amounts to about 50-60 basis points whether we look at the one, three, or six month level.

Table 5 tests the electronic-paper reporting difference more formally using OLS. The industry-size adjusted BHAR is the dependent variable. We include dummies for purchase, electronically filed, and purchase*electronically filed. Paper sales are the omitted category. Table 5 confirms what we saw in Table 2d. Electronically reported sales (the coefficient in row 2) have statistically significantly lower returns than paper reported sales. This difference increases when we weight by the value of the trade in columns 2, 4, and 6.

Table 3 examines industry-size adjusted buy and hold abnormal returns (BHAR) by size of trade. Table 3a is for purchases and Table 3b is for sales. If senators are skilled stock pickers, we would expect the larger buy trades to have more significant outperformance. We find the opposite. The largest two categories of trades (those that are \$100k - \$249k or \$250k plus) have meaningful underperformance. For example, at the six month time horizon, the second largest category of purchases underperforms by 2.4% and the largest category underperforms by 3.9%.

Table 3b looks at performance of stocks sold by trade size. The most notable effect is at the three month level where the largest sales (those \$250k or greater in size) underperform by

2.9%. However, throughout the rest of the table there does not appear to be much of a pattern in which stocks sold perform poorly after the sale.

In summary, we find no evidence that the stocks purchased outperform; these stocks slightly underperform. On average, stocks underperform slightly after a sale. However, this is only driven by electronically reported sales which underperform in some models by about 50 bps at the six month level; the effect goes away at the one year level.

B. Impact of Committee Membership

We now look for evidence that senators' stock picks perform differentially well or poorly based on Senate Committee membership and specifically the interaction between committee assignment and the industry of the company. For example, do senators assigned to the Energy and Natural Resources Committee perform particularly well when trading drilling companies (SIC code 1381) or natural gas extraction companies (SIC code 1311)? We match Senate committees to SIC codes and trades as shown in Appendix Table 2. Here we show the number of trades by SIC code cross tabbed with the trading senator's committee. Only 6.5 percent of trades feature a match between company industry and committee membership. We consider all of the committees on which a senator serves during the calendar year of the stock trade.

Our results are shown in Table 4. We regress industry size adjusted returns on a dummy for a match between the company industry and the senator's committees. Panel A reports unweighted regressions and Panel B weights by amount of the trade. For the unweighted results, not much is going on. Having the committee match (senator to industry) results in insignificantly higher buy and hold returns for stocks purchased. "Committee Match" increases six month buy and hold returns for purchases by a statistically insignificant 56 basis points. There is a slight positive and insignificant relationship between "Committee Match" and the subsequent performance of stocks that are sold.

The weighted regressions are slightly more interesting. For purchases, Committee Match remains positively associated with one year buy and hold returns though only the one month effect is significant (at the 10 percent level). However, Committee Match is now also significantly negatively associated with the one year returns for stocks that are sold. Such stocks underperform by 5.7 percent over the year following the sale (adding the constant and the Committee Match effect). This does appear to be evidence in favor of informed stock trading and avoidance of losses. However, this finding is tempered by the fact that we are relying on a small sample of 240 sells (and 300 buys) in which the Committee matches the industry and we are conducting 24 separate tests within Table 4.

B. Calendar Time Portfolio Returns

We now turn to calendar time returns on portfolios of the stocks selected by senators. For each day we construct a portfolio of stocks bought (sold) by a senator in the past year. We weight by the size of the trade. This daily rebalancing is not terribly realistic but is the simplest approach given that we are already working with daily data and we have the precise day on which the trade was made. In the portfolio approach we control for the contemporaneous returns to Fama French factors and thereby examine systematic risk that senators may be taking.

Results are shown in Table 6. The first two columns are for purchases and the second two for sales. Columns 1 and 3 use the Fama French three factor model while columns 2 and 4

add the Carhart momentum factor. Interestingly, the market beta for both the purchase and sale portfolios is close to one. Senators exhibit a modest tilt towards value and small stocks. Stocks bought and sold by senators have negative loading on momentum. We noticed this in the raw data-- stocks bought by senators tend to underperform for the 100 days prior to the purchase.

The daily alphas on both the buy and sell portfolios are statistically insignificant. The Carhart alpha for the purchases is -.35 basis points. Cumulated over six months this equates to - 44 basis points which is similar to the results from Table 2. Carhart alpha for the sales is positive .14 basis points which suggests that stocks sold outperform by 18 basis points over a six-month period.

In Table 7 we stratify by returns for Republicans versus Democrats. We run OLS regressions. The outcome is the industry size adjusted return at the one, three, six and twelve month horizons. To emphasize the mean returns for each category relative to 0 (rather than relative to an omitted category), we depart from standard practice and use four non-overlapping (mutually exclusive) categorical variables: buys or sells for Republicans or Democrats. We include trades from independent Senator Angus King with the Democrats. The patterns of the coefficients are not particularly striking. The data suggest that Democrats may have some slight skill in picking stocks to buy while Republicans are skilled at picking stocks to sell. However, this conclusion is tempered by the fact that Republican purchases underperform by as much as Republican sales. A more accurate description of the results is that, on an industry-size adjusted basis, Republicans pick stocks that do somewhat poorly when bought and even after when sold.

B. Recent Returns and The January 24th Briefing

As noted above, recent stock sales timed with the COVID-19 crisis have attracted significant media attention. In particular four senators are likely to be investigated for sales they made following a January 24th briefing of the Health Education Labor and Pensions Committee. We compile all trades since Dec 1 2019 and examine average returns from the time of the trade to March 27, 2020. We allow the holding period time to vary. In Table 8A we report the holding period returns on recent buys and sells both before and after the January 24th briefing. The bottom row shows average returns. After the briefing there were 121 sales versus 61 buys. These sales underperformed the purchases by a statistically significant -9.4 percent.

In Table 8B we report market adjusted returns. Here the market adjustment compensates for the different lengths of the holding periods. Sales post-briefing underperform the market by 9.2 percentage points and purchases underperform by 3.6 percentage points. In unreported tests we find that this underperformance is statistically significant.

III. Conclusion

Using a novel dataset of the financial transactions of United States senators, we calculate short and medium run buy and hold abnormal returns for the publicly-listed securities that senators buy and sell. Perhaps not surprisingly, we find only limited evidence that senators display stock picking prowess. The average stock purchased slightly underperforms the market at the one and three month level. This remains true even after adjusting for the Carhart four factor model. Stocks sold also underperform the market on average by roughly 30 basis points in the 1 and 3 months following the sale. Senators' committee assignments do not correlate with excess returns to their trades in related industries. Use of paper filings (relative to electronic) is not correlated with abnormal returns in the way we expected. Buys filed in paper or electronic form have similar returns. Sales filed electronically have slight negative abnormal returns while sales filed by paper have insignificant positive abnormal returns. There is some modest evidence that the most recent trading showed both a market timing and a stock picking component; sales outnumbered buys by 2:1 *and* the stocks sold underperformed the market by 9 percent.

References

- Acemoglu, Daron, et al. "The Value of Connections in Turbulent Times: Evidence from the United States." *Journal of Financial Economics*, vol. 121, no. 2, Aug. 2016, pp. 368–91, doi:10.1016/j.jfineco.2015.10.001.
- Akey, Pat. "Valuing Changes in Political Networks: Evidence from Campaign Contributions to Close Congressional Elections." *The Review of Financial Studies*, vol. 28, no. 11, June 2015, pp. 3188–223, doi:10.1093/rfs/hhv035.
- Carhart, Mark M. "On Persistence in Mutual Fund Performance." *The Journal of Finance*, 1997, pp. 57–82.
- Cherry, Ian and Heitz, Amanda and Jens, Candace, "Change in Capitol: How a 60 MinutesExposé and the STOCK Act Affected the Investment Activity of U.S. Senators" (July 10, 2017). 28th Annual Conference on Financial Economics and Accounting.
- Cohen, Lauren, et al. "Legislating Stock Prices." *Journal of Financial Economics*, vol. 110, no. 3, 2013, pp. 574–595., doi:10.1016/j.jfineco.2013.08.012.
- Cohen, Lauren, et al. "Sell-Side School Ties." *The Journal of Finance*, vol. 65, no. 4, Aug. 2010, pp. 1409–37, doi:<u>10.1111/j.1540-6261.2010.01574.x</u>.
- Daniel, Kent, et al. "Measuring Mutual Fund Performance with Characteristic-Based Benchmarks." *The Journal of Finance*, vol. 52, no. 3, 1997, pp. 1035–1058., doi:10.1111/j.1540-6261.1997.tb02724.x.
- Eggers, Andrew C., and Jens Hainmueller. "Capitol Losses: The Mediocre Performance of Congressional Stock Portfolios." *The Journal of Politics*, vol. 75, no. 2, 2013, pp. 535– 551., doi:10.1017/s0022381613000194.
- Eggers, Andrew C., and Jens Hainmueller. "Political Capital: Corporate Connections and Stock Investments in the U.S. Congress, 2004-2008." *Quarterly Journal of Political Science*, vol. 9, no. 2, 2014, pp. 169–202., doi:10.1561/100.00013077.
- Fama, Eugene F., and Kenneth R. French. "The cross
Journal of Finance 47, no. 2 (1992): 427-465.-Tsketion of expected st
- Holman, Craig. "The Impact of the STOCK Act on Stock Trading Activity by U.S. Senators, 2009 2015." *Citizen.org*, 2017, www.citizen.org/wp-content/uploads/migration/case_documents/2017_stock_act_report.pdf.

- Huang, Ruidi, and Yuhai Xuan. "'Trading' Political Favors: Evidence from the Impact of the STOCK Act." *Available at SSRN 2765876* (2019).
- Lawder, David, and Richard Cowan. "Congress Quietly Repeals Plan for Internet Financial Disclosures." *Reuters*, Thomson Reuters, 12 Apr. 2013, <u>www.reuters.com/article/net-us-usa-congress-security-idUSBRE93B0ZJ20130412</u>.
- Nagy, Donna M. "Owning stock while making law: an agency problem and a fiduciary solution." *Wake Forest L. Rev.* 48 (2013): 567.
- Tahoun, Ahmed. "The role of stock ownership by US members of Congress on the market for political favors." *Journal of Financial Economics* 111.1 (2014): 86-110.
- Ziobrowski, Alan J., et al. "Abnormal Returns From the Common Stock Investments of Members of the U.S. House of Representatives." *Business and Politics*, vol. 13, no. 1, 2011, pp. 1–22., doi:10.2202/1469-3569.1308.
- Ziobrowski, Alan J., et al. "Abnormal Returns from the Common Stock Investments of the U.S. Senate." *The Journal of Financial and Quantitative Analysis*, vol. 39, no. 4, 2004, pp. 661–676. *JSTOR*, www.jstor.org/stable/30031880. Accessed 6 Mar. 2020.

Figure 1a : All Trades

Mean Purchase and Sale Buy And Hold Abnormal Return

Notes: We show buy and hold abnormal returns from the trade date forward. Returns are the cumulative return on the stock minus an industry-size matched portfolio. We match on 4 digit SIC and quintiles of market cap from six months prior to the event. Trades are from Senators 2012-2019. Buy and hold abnormal returns are the returns on the stock cumulated minus returns on the CRSP index cumulated. We equal weight trades as of day 0 and do not rebalance. Missing returns for a stock are replaced with the industry-size matched return. Dashed lines show 95% confidence intervals.

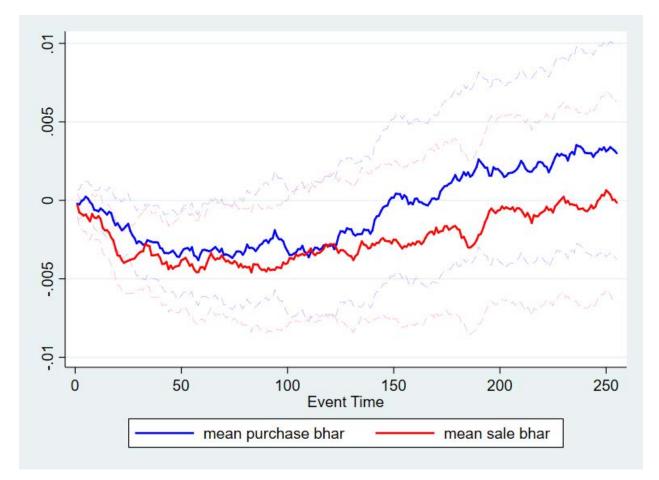


Figure 1b : Electronically Reported Trades

Mean Purchase and Sale Buy And Hold Abnormal Return

Notes: We show buy and hold abnormal returns from the trade date forward. Returns are the cumulative return on the stock minus an industry-size matched portfolio. We match on 4 digit SIC and quintiles of market cap from six months prior to the event. Trades are from Senators 2012-2019. Buy and hold abnormal returns are the returns on the stock cumulated minus returns on the CRSP index cumulated. We equal weight trades as of day 0 and do not rebalance. Missing returns for a stock are replaced with the the industry-size matched return. Dashed lines show 95% confidence intervals.

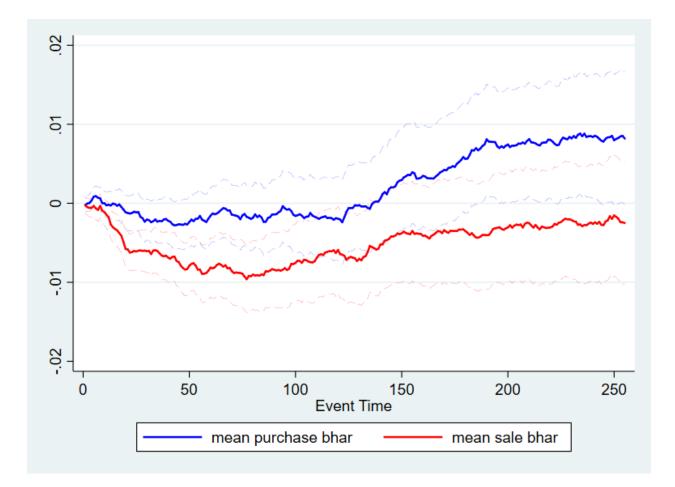


Figure 1c : Paper Reported Trades

Mean Purchase and Sale Buy And Hold Abnormal Return

Notes: We show buy and hold abnormal returns from the trade date forward. Returns are the cumulative return on the stock minus an industry-size matched portfolio. We match on 4 digit SIC and quintiles of market cap from six months prior to the event. Trades are from Senators 2012-2019. Buy and hold abnormal returns are the returns on the stock cumulated minus returns on the CRSP index cumulated. We equal weight trades as of day 0 and do not rebalance. Missing returns for a stock are replaced with the industry-size matched return. Dashed lines show 95% confidence intervals.

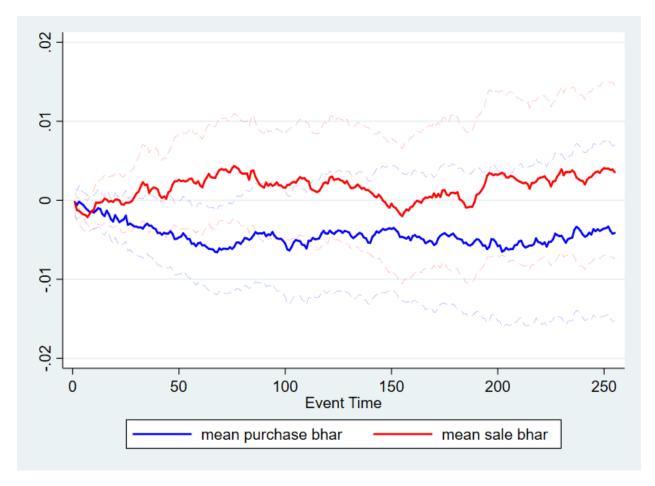


Figure 2a: All Trades

Mean Purchase and Sale Buy And Hold Abnormal Return

Notes: These are the same calculations reported in Figure1a-1c and Tables 2a-2f. We show buy and hold abnormal returns (relative to the industry size matched portfolio) from the trade date forward. Trades are from Senators 2012-2019. Buy and hold abnormal returns are the returns on the stock cumulated minus returns on the CRSP index cumulated. We equal weight trades as of day 0 and do not rebalance.



Figure 2b: Electronically Reported Trades

Mean Purchase and Sale Buy And Hold Abnormal Return

Notes: These are the same calculations reported in Figure1a-1c and Tables 2a-2f. We show buy and hold abnormal returns (relative to the industry-size matched portfolio) from the trade date forward. Trades are from Senators 2012-2019. Buy and hold abnormal returns are the returns on the stock cumulated minus returns on the CRSP index cumulated. We equal weight trades as of day 0 and do not rebalance.



Figure 2c: Paper Reported Trades

Mean Purchase and Sale Buy And Hold Abnormal Return

Notes: These are the same calculations reported in Figure1a-1c and Tables 2a-2f. We show buy and hold abnormal returns (relative to an industry-size matched portfolio) from the trade date forward. Trades are from Senators 2012-2019. Buy and hold abnormal returns are the returns on the stock cumulated minus returns on the CRSP index cumulated. We equal weight trades as of day 0 and do not rebalance.



Table 1: Number of Filings/ Stock Trades By Year

We show a frequency tab of stock trades by Senators by year. We tabulate by year, purchase versus sale, and whether the trade was reported electronically or via paper filing. Both types of reports are accessed here: https://efdsearch.senate.gov/search/home/. If a senator makes multiple trades of the same stock in the same day, we combine the trades.

	Paper I	Filing	Electr Fili		All	
year	Buy	Sell	Buy	Sell	Buy	Sell
2012	262	202		1	262	203
2013	691	542	7	16	698	558
2014	395	369	792	719	1,187	1,088
2015	52	54	432	519	484	573
2016	53	38	385	262	438	300
2017	132	84	501	422	633	506
2018	257	220	419	433	676	653
Total	1,842	1,509	2,536	2,372	4,378	3,881

Table 2a: Estimation Table All Purchases

We calculate abnormal returns to all stocks purchased by Senators over 1,3,6,12 month time periods. Returns are from the day of the trade. Abnormal returns are calculated 5 different ways. In the first three rows we calculate the stocks buy and hold return relative to 1) the CRSP Value weighted index, 2) an industry-size benchmark using 4 digit SIC and quintiles of lagged 6 month market cap, 3) the DGTW benchmark using quintiles of momentum*size*book-market. In the final two rows we cumulate abnormal daily returns using the Fama French and Carhart models. We use the WRDS event tool to calculate factor loadings using pre-event window data.

	N	One	Three	Six	One Year
		Month	Months	Months	
BHAR Market	4378	-0.0016	-0.0036**	-0.0034	-0.0037
		(0.0011)	(0.0018)	(0.0029)	(0.0044)
		-1.4545	-2.0000	-1.1724	-0.8409
BHAR Ind Size	4378	-0.0011	-0.0028**	-0.0017	0.0034
DIMA ING 0120	1570	(0.0008)	(0.0014)	(0.0022)	(0.0033)
		-1.3750	-2.0000	-0.7727	1.0303
BHAR DGTW	4378	-0.002**	-0.0046**	-0.0019	0.0078*
		(0.001)	(0.0018)	(0.0028)	(0.0042)
		-2.0000	-2.5556	-0.6786	1.8571
Fama French	4378	-0.0015	-0.0007	0.0115***	0.0654***
		(0.0011)	(0.0023)	(0.0043)	(0.0099)
		-1.3636	-0.3043	2.6744	6.6061
	1250	0.000		0.000	0.0005
Carhart	4378	-0.002*	-0.0056***	-0.003	0.0095
		(0.0011)	(0.002)	(0.0034)	(0.0065)
		-1.8182	-2.8000	-0.8824	1.4615

Table 2b: Estimation Table All Sales

We calculate abnormal returns to all stocks sold by Senators over 1,3,6,12 month time periods. Returns are from the day of the trade. Abnormal returns are calculated 5 different ways. In the first three rows we calculate the stocks buy and hold return relative to 1) the CRSP Value weighted index, 2) an industry-size benchmark using 4 digit SIC and quintiles of lagged 6 month market cap, 3) the DGTW benchmark using quintiles of momentum*size*book-market. In the final two rows we cumulate abnormal daily returns using the Fama French and Carhart models. We use the WRDS event tool to calculate factor loadings using pre-event window data.

	Ν	One	Three	Six	One Year
		Month	Months	Months	
BHAR Market	3881	-0.0027**	-0.0046**	-0.0095***	-0.0177***
		(0.0013)	(0.0023)	(0.0032)	(0.0044)
		-2.0769	-2.0000	-2.9688	-4.0227
BHAR Ind Size	3881	-0.0025***	-0.003*	-0.0019	0.0014
		(0.0009)	(0.0017)	(0.0024)	(0.0033)
		-2.7778	-1.7647	-0.7917	0.4242
BHAR DGTW	3881	-0.0013	-0.0018	-0.0009	0.0029
		(0.0012)	(0.0022)	(0.003)	(0.0042)
		-1.0833	-0.8182	-0.3000	0.6905
Fama French	3881	-0.003**	-0.0029	0.0034	0.0496***
		(0.0014)	(0.0027)	(0.0045)	(0.0135)
		-2.1429	-1.0741	0.7556	3.6741
Carhart	3881	-0.0036***	-0.0049**	-0.004	0.0133
		(0.0013)	(0.0025)	(0.004)	(0.0113)
		-2.7692	-1.9600	-1.0000	1.1770

Table 2c: Estimation Table Electronic and Paper Purchases

We calculate abnormal returns to all stocks purchased by Senators over 1,3,6,12 month time periods. We divide the sample by trades reported electronically versus on paper. Returns are from the day of the trade. Abnormal returns are calculated 5 different ways. In the first three rows we calculate the stocks buy and hold return relative to 1) the CRSP Value weighted index, 2) an industry-size benchmark using 4 digit SIC and quintiles of lagged 6 month market cap, 3) the DGTW benchmark using quintiles of momentum*size*book-market. In the final two rows we cumulate abnormal daily returns using the Fama French and Carhart models. We use the WRDS event tool to calculate factor loadings using pre-event window data.

					•					
			Paper					Electron	nic	
	Ν	One	Three	Six	One	Ν	One	Three	Six	One
		Month	Months	Months	Year		Month	Months	Months	Year
BHAR Market	1842	-0.0035**	-0.0048	-0.0034	-0.004	2536	-0.0002	-0.0027	-0.0034	-0.0035
		(0.0016)	(0.0031)	(0.0046)	(0.0067)		(0.0014)	(0.0023)	(0.0036)	(0.0058)
		-2.1875	-1.5484	-0.7391	-0.5970		-0.1429	-1.1739	-0.9444	-0.6034
BHAR Ind Size	1842	-0.0012	-0.0047*	-0.0034	-0.0035	2536	-0.0009	-0.0014	-0.0005	0.0083**
		(0.0013)	(0.0024)	(0.0037)	(0.0055)		(0.001)	(0.0017)	(0.0026)	(0.0042)
		-0.9231	-1.9583	-0.9189	-0.6364		-0.9000	-0.8235	-0.1923	1.9762
BHAR DGTW	1842	-0.003*	-0.0066**	-0.005	0.0036	2536	-0.0013	-0.0031	0.0004	0.0109*
		(0.0016)	(0.0029)	(0.0044)	(0.0063)		(0.0014)	(0.0022)	(0.0035)	(0.0056)
		-1.8750	-2.2759	-1.1364	0.5714		-0.9286	-1.4091	0.1143	1.9464
Fama French	1842	-0.0062***	-0.0103***	-0.0094	0.0247*	2536	0.002	0.0062**	0.0267***	0.0951***
		(0.0017)	(0.0036)	(0.006)	(0.0136)		(0.0015)	(0.003)	(0.006)	(0.0138)
		-3.6471	-2.8611	-1.5667	1.8162		1.3333	2.0667	4.4500	6.8913
Carhart	1842	-0.0062***	-0.0121***	-0.0152***	-0.0082	2536	0.0011	-0.0008	0.0058	0.0223***
0		(0.0016)	(0.0033)	(0.0055)	(0.0115)		(0.0014)	(0.0025)	(0.0044)	(0.0074)
		-3.8750	-3.6667	-2.7636	-0.7130		0.7857	-0.3200	1.3182	3.0135

Table 2d: Estimation Table Electronic and Paper Sales

We calculate abnormal returns to all stocks sold by Senators over 1,3,6,12 month time periods. We divide the sample by trades reported electronically versus on paper. Returns are from the day of the trade. Abnormal returns are calculated 5 different ways. In the first three rows we calculate the stocks buy and hold return relative to 1) the CRSP Value weighted index, 2) an industry-size benchmark using 4 digit SIC and quintiles of lagged 6 month market cap, 3) the DGTW benchmark using quintiles of momentum*size*book-market. In the final two rows we cumulate abnormal daily returns using the Fama French and Carhart models. We use the WRDS event tool to calculate factor loadings using pre-event window data.

			Раре	r				Electron	ic	
	Ν	One	Three	Six	One	Ν	One	Three	Six	One
		Month	Months	Months	Year		Month	Months	Months	Year
BHAR Market	1509	0.002	0.009**	0.0086*	0.0008	2372	-0.0056***	-0.0133***	-0.021***	-0.0295***
		(0.0022)	(0.004)	(0.0052)	(0.0075)		(0.0015)	(0.0027)	(0.004)	(0.0054)
		0.9091	2.2500	1.6538	0.1067		-3.7333	-4.9259	-5.2500	-5.4630
BHAR Ind Size	1509	0.0012	0.0031	0.0036	0.0047	2372	-0.0048***	-0.0069***	-0.0054*	-0.0007
		(0.0016)	(0.0032)	(0.0039)	(0.0055)		(0.0011)	(0.0019)	(0.003)	(0.0041)
		0.7500	0.9688	0.9231	0.8545		-4.3636	-3.6316	-1.8000	-0.1707
BHAR DGTW	1509	0.0037*	0.0087**	0.0119**	0.0162**	2372	-0.0044***	-0.0084***	-0.0091**	-0.0055
		(0.0021)	(0.004)	(0.0051)	(0.007)		(0.0014)	(0.0025)	(0.0038)	(0.0052)
		1.7619	2.1750	2.3333	2.3143		-3.1429	-3.3600	-2.3947	-1.0577
Fama French	1509	0.0018	0.0091*	0.0195**	0.0875***	2372	-0.006***	-0.0106***	-0.0068	0.0255***
		(0.0024)	(0.0048)	(0.0085)	(0.0318)		(0.0016)	(0.0032)	(0.0051)	(0.0089)
		0.7500	1.8958	2.2941	2.7516		-3.7500	-3.3125	-1.3333	2.8652
Carhart	1509	0.0005	0.0063	0.0071	0.0269	2372	-0.0062***	-0.012***	-0.011**	0.0045
Gaillan	1509	(0.0023)	(0.0045)	(0.0071)	(0.0265)	2312	(0.0016)	(0.0029)	(0.0047)	(0.0078)
		0.2174	(0.0043)	0.9861	1.0151		-3.8750	-4.1379	-2.3404	0.5769
		0.21/4	1.4000	0.9001	1.0151		-5.0750	-т.13/9	-2.3404	0.5709

Table 3a: Buy and Hold Abnormal Returns All Purchases By Trade Size

We calculate buy and hold abnormal returns (relative to the industry-size matched portfolio) for all purchases. We report by the dollar amount of the trade listed on the report (which uses eight coarse categories for dollar value of trade which we consolidate)

We stratify by whether the trade was reported electronically or on paper. Buy and hold returns on the stock are cumulated using daily data. We subtract the buy and hold return on the CRSP value weighted index to arrive at buy and hold abnormal returns. 2A is for all purchase. 2B all sales. 2C: purchases reported on paper records. 2D: sales reported on paper records. 2E and 2F are for purchases and sales reported on electronic records. Each cell shows mean returns (unweighted), standard error of the mean, t-statistic.

amount					
	Ν	One Month	Three Months	Six Months	One Year
1k-10k	3408	-0.0004	-0.0024	0.0001	0.005
		(0.0009)	(0.0016)	(0.0025)	(0.0038)
		-0.4444	-1.5000	0.0400	1.3158
10k-49k	610	-0.0035*	-0.0017	-0.0061	-0.0059
		(0.002)	(0.0036)	(0.0059)	(0.0083)
		-1.7500	-0.4722	-1.0339	-0.7108
50k-99k	158	0.0022	0.0065	0.011	0.0277
		(0.0037)	(0.007)	(0.0135)	(0.0259)
		0.5946	0.9286	0.8148	1.0695
100k-249k	128	-0.0049	-0.0171***	-0.0241***	-0.0059
		(0.0033)	(0.0061)	(0.0087)	(0.0142)
		-1.4848	-2.8033	-2.7701	-0.4155
250k+	74	-0.0121*	-0.0285***	-0.0386**	-0.0321*
		(0.0065)	(0.0102)	(0.015)	(0.0185)
		-1.8615	-2.7941	-2.5733	-1.7351
Total	4378	-0.0011	-0.0028**	-0.0017	0.0034
		(0.0008)	(0.0014)	(0.0022)	(0.0033)
		-1.3750	-2.0000	-0.7727	1.0303

Table 3b: Buy and Hold Abnormal Returns All Sales By Trade Size

We calculate buy and hold abnormal returns for all sales (relative the industry size matched portfolio). We report by the dollar amount of the trade listed on the report (which uses eight coarse categories for dollar value of trade)

We stratify by whether the trade was reported electronically or on paper. Buy and hold returns on the stock are cumulated using daily data. We subtract the buy and hold return on the CRSP value weighted index to arrive at buy and hold abnormal returns. 2A is for all purchase. 2B all sales. 2C: purchases reported on paper records. 2D: sales reported on paper records. 2E and 2F are for purchases and sales reported on electronic records. Each cell shows mean returns (unweighted), standard error of the mean, t-statistic.

amount					
	Ν	One Month	Three Months	Six Months	One Year
1k-10k	2829	-0.0017	-0.002	-0.0015	0.002
		(0.0011)	(0.002)	(0.0028)	(0.004)
		-1.5455	-1.0000	-0.5357	0.5000
10k-49k	702	-0.0053**	-0.005	-0.0044	-0.0026
		(0.0023)	(0.0043)	(0.0055)	(0.0071)
		-2.3043	-1.1628	-0.8000	-0.3662
50k-99k	138	0.0012	0.0054	0.0078	0.0066
		(0.004)	(0.0074)	(0.0102)	(0.015)
		0.3000	0.7297	0.7647	0.4400
100k-249k	132	-0.0036	-0.007	-0.0012	0.0028
		(0.0046)	(0.0069)	(0.0099)	(0.0144)
		-0.7826	-1.0145	-0.1212	0.1944
250k+	80	-0.0096	-0.0289**	-0.0114	0.0062
		(0.007)	(0.0129)	(0.0215)	(0.0258)
		-1.3714	-2.2403	-0.5302	0.2403
Total	3881	-0.0025***	-0.003*	-0.0019	0.0014
		(0.0009)	(0.0017)	(0.0024)	(0.0033)
		-2.7778	-1.7647	-0.7917	0.4242

Table 4: Buy and Hold Abnormal Returns By Whether Senator is On ACommittee That Has Direct Oversight for Companies' Industry

We match company primary SIC codes to Senate Committees using the correspondence between committee and industries show in Appendix 2. We regress buy and hold abnormal returns (industry and size adjusted) on a dummy for whether the Senator's committee has some oversight or responsibility for the company's industry. A typical example would be an energy company and the Senate's Energy and Natural Resources Committee. The constant term represents returns for those companies industries that do not match to the Senators committee.

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	Purchases: One Month	Purchases: Six Months	Purchases: One Year	Sales: One Month	Sales: Six Months	Sales: One Year
Committee	0.00415	0.00555	0.0111	0.00224	0.00361	0.000657
Matches SIC	(0.00316)	(0.00870)	(0.0132)	(0.00386)	(0.00983)	(0.0136)
Constant	-0.00134 (0.000828)	-0.00209 (0.00228)	0.00260 (0.00345)	-0.00262*** (0.000961)	-0.00212 (0.00245)	0.00140 (0.00339)
Observations	4,378	4,378	4,378	3,881	3,881	3,881
R-squared	0.000	0.000	0.000	0.000	0.000	0.000

Panel A Unweighted Returns

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Panel B: Weighted By Dollar Amount of Purchases

VARIABLES	Purchases: One	Purchases: Six	Purchases:	Sales: One	Sales: Six	Sales: One
	Month	Months	One Year	Month	Months	Year
Committee	0.00618*	0.0140	0.0107	0.000602	-0.00785	-0.0627***
Matches SIC	(0.00335)	(0.00916)	(0.0140)	(0.00469)	(0.0127)	(0.0163)
Constant	-0.00616***	-0.0199***	-0.00998***	-0.00548***	-0.00417	0.00598*
	(0.000763)	(0.00209)	(0.00319)	(0.000939)	(0.00254)	(0.00326)
Observations	4,3 78 0.001	4,378	4,3 78	3, 881	3, 881	3, 881
R-squared		0.001	0.000	0.000	0.000	0.004

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 5 : Regressions With Interactions of Purchase (vs Sale) AndElectronic (Versus Paper) Filing

The dependent variable is the Buy and Hold Abnormal Return (relative the industry size matched portfolio) on the stock. We calculate (cumulate) buy and hold returns on the individual stock using daily data. We then subtract the corresponding return on the industry size adjusted portfolio. The constant term represents BHARs for sales filed in paper form. We include dummies for purchases, electronic filing, and the interaction of the two.

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	One	One Month	Six Month	Six Month	One Year	One Year BHAR
	Month	BHAR	BHAR	BHAR	BHAR	Value Weighted
	BHAR	Value		Value		0
		Weighted		Weighted		
Purchase	-0.00239	-0.00191	-0.00697	-0.0284***	-0.00820	-0.0488***
	(0.00192)	(0.00161)	(0.00509)	(0.00437)	(0.00739)	(0.00608)
Electronic Filing	-0.00595***	-0.00638***	-0.00898*	-0.0353***	-0.00541	-0.0502***
	(0.00182)	(0.00165)	(0.00483)	(0.00447)	(0.00700)	(0.00622)
Purchase*Electronic Filing	0.00624**	0.00227	0.0118*	0.0251***	0.0172*	0.0746***
	(0.00249)	(0.00237)	(0.00659)	(0.00641)	(0.00956)	(0.00893)
Constant	0.00116	-0.00220*	0.00359	0.0135***	0.00475	0.0291***
Gonotant	(0.00142)	(0.00118)	(0.00377)	(0.00319)	(0.00548)	(0.00444)
Observations	8,259	8,259	8,259	8,259	8,259	8,259
R-squared	0.001	0.003	0.000	0.011	0.000	0.011
1	0.0001		ore in parantha		0.000	0.011

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 6: Regression with Calendar Time Portfolio Returns

We run "calendar time" portfolio regressions on Fama French Factors. The dependent variable is the mean portfolio return for the day minus the daily risk free rate. We include in each day's portfolio all stocks that were bought (sold) within the prior 255 trading days. In constructing the day's portfolio we weight by dollar amount of the trade. We run this at the daily level mostly for convenience. The reported alpha is the daily alpha.

· · ·	(1)	(2)	(3)	(4)
VARIABLES	Purchases:	Purchases: Daily	Sales: Daily	Sales: Daily Calendar
	Daily	Calendar Time	Calendar Time	Time Regression
	Calendar	Regression	Regression	
	Time			
	Regression			
Excess Return on the Market	1.030***	1.017***	1.017***	1.015***
Excess Return on the Market	(0.0220)	(0.0209)	(0.0157)	(0.0156)
	(0.0220)	(0.0207)	(0.0157)	(0.0150)
High-Minus-Low Return	0.197***	-0.0540	0.0740***	-0.00559
-	(0.0365)	(0.0390)	(0.0258)	(0.0288)
Small-Minus-Big Return	0.167***	0.0686*	0.204***	0.172***
Sinai-Winus-Dig Ketuin	(0.0377)	(0.0365)	(0.0266)	(0.0269)
	(0.0377)	(0.0505)	(0.0200)	(0.0207)
Momentum		-0.389***		-0.123***
		(0.0275)		(0.0203)
Constant	-8.75e-05	-3.49e-05	2.77e-06	1.41e-05
	(0.000180)	(0.000171)	(0.000128)	(0.000127)
Observations	1,939	1,939	1,884	1,884
R-squared	0.552	0.594	0.709	0.714

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

	(1)	(2)	(3)	(4)
VARIABLES	One Month Industry	Three Month	Six Month	On Year Industry
	Adjusted Returns	Industry Adjusted	Industry Adjusted	Adjusted Returns
		Returns	Returns	
Democrat*Buy	-0.000152	0.00212	0.00741**	0.0133**
5	(0.00138)	(0.00250)	(0.00366)	(0.00532)
Democrat*Sell	0.000731	0.00346	0.00518	0.00817
	(0.00151)	(0.00273)	(0.00399)	(0.00580)
Republican*Buy	-0.00158	-0.00569***	-0.00697**	-0.00239
1 ,	(0.00105)	(0.00190)	(0.00278)	(0.00404)
Republican*Sell	-0.00418***	-0.00644***	-0.00565*	-0.00213
1	(0.00110)	(0.00199)	(0.00291)	(0.00422)
Observations	8,259	8,259	8,259	8,259
R-squared	0.002	0.003	0.002	0.001
P-value D Buy v R Buy	0.410	0.0129	0.00177	0.0185
P-value D Sell v R Sell	0.00852	0.00334	0.0284	0.151

Table 7: Regression with Party Match

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table 8A: Raw Cumulative Returns For Trades from Dec 1, 2019-March 27, 2020

We take recent stock trades by Senators made during Dec 1 2019-March 27th. We calculate holding period returns from trade date to March 27th allowing the holding period to vary by trade. Cells contain the average raw return and the N for the cell.

	Post -Briefing			
	0		1	
Amount	Buy	Sell	Buy	Sell
1000	-0.308	-0.271	-0.25	-0.399
	39	43	45	52
15000	-0.145	-0.095	-0.193	-0.249
	11	6	13	44
50000	-0.404	-0.333		-0.298
	3	3		17
100000	0.011	-0.141	-0.03	-0.29
	1	3	3	5
250000	-0.502	-0.506		-0.198
	1	1		3
Total	-0.278	-0.253	-0.227	-0.321
	55	56	61	121

Table 8B: Abnormal Returns For Trades from Dec 1, 2019-March 27, 2020

Cells contain the average raw return minus market return and the N for the cell.

	Pre-Briefing		Post-Briefing	
Amount	Buy	Sell	Buy	Sell
1000	-0.099	-0.056	-0.058	-0.176
	39	43	45	52
15000	0.074	0.123	0.005	-0.018
	11	6	13	44
50000	-0.191	-0.109		-0.06
	3	3		17
100000	0.224	0.076	0.211	-0.057
	1	3	3	5
250000	-0.266	-0.27		0.039
	1	1		3
Total	-0.067	-0.036	-0.032	-0.092
	55	56	61	121

Appendix Table 1: Purchases and Sales By Senator 2012-2019

This is our sample of trades by Senator for the period 2012-2019. Data are pulled and created from electronic filings and pdfs of paper filings located at <u>https://efdsearch.senate.gov/search/</u>.

name	Buy	Sell	Total
	No.	No.	No.
Angus King	7	19	26
Benjamin Cardin	0	4	4
Bill Cassidy	47	49	96
Chris Coons	2	4	6
Chris Van Hollen	0	6	6
Claire McCaskill	0	18	18
Cory Booker	0	12	12
Dan Sullivan	0	9	9
Daniel Coats	1	15	16
David Perdue	592	539	1,131
David Vitter	1	2	3
Dean Heller	22	42	64
Dianne Feinstein	179	120	299
Elizabeth Warren	0	2	2
Gary Peters	29	6	35
James Inhofe	135	178	313
Jeffrey Flake	11	10	21
Jeffrey Sessions	0	1	1
Jerry Moran	19	7	26
Joe Manchin	1	0	1
John Boozman	72	82	154
John Cornyn	1	1	2
John Hoeven	116	52	168
John Kennedy	1	0	1
John Reed	65	71	136
John Rockefeller	9	7	16
Jon Kyl	7	3	10
Kay Hagan	549	524	1,073
Maria Cantwell	0	4	4
Mark Begich	27	16	43
Mark Udall	3	1	4
Mark Warner	0	5	5
Mary Landrieu	0	1	1

Michael Bennet	0	1	1
Michael Enzi	0	1	1
Michael Johanns	1	0	1
Mitch McConnell	4	0	4
Orrin Hatch	31	18	49
Patrick Roberts	197	131	328
Patrick Toomey	33	68	101
Patty Murray	78	83	161
Richard Blumenthal	0	5	5
Richard Burr	77	83	160
Robert Casey	0	1	1
Robert Corker	432	300	732
Ronald Wyden	0	20	20
Roy Blunt	0	7	7
Saxby Chambliss	1	6	7
Sheldon Whitehouse	381	219	600
Shelley Capito	164	37	201
Susan Collins	336	322	658
Tammy Duckworth	1	15	16
Ted Cruz	8	3	11
Thad Cochran	344	334	678
Thomas Carper	262	167	429
Thomas Coburn	131	143	274
Thomas Harkin	0	2	2
Thomas Tillis	0	95	95
Thomas Udall	0	3	3
Tim Kaine	1	0	1
Tina Smith	0	7	7
Total	4,384	3,885	8,269

Appendix Table 2

This table shows our correspondence between Senate committee and industry of the traded company. We matched these codes based on Senate descriptions of the Committee's purview.

Committee	SIC Codes	Total Number of	
		SIC Codes	
		matched	
Agriculture,	742, 2000, 2033, 2038, 2041, 2043, 2052, 2082, 2084, 2086, 2099	63	
Nutrition, And			
Forestry		_	
Banking, Housing,	5033	7	
And Urban Affairs			
Commerce, Science,	2879,2890,3711,3714,3721,3724,3761,3799,4011,4226,4412,45	110	
And Transportation	12,4513,4612,4731,4911,4922,4923,4931,4932,5010,5521,5531		
Energy And Natural	1011,1021,1041,1311,1321,1381,1382,1389	34	
Resources			
Finance	6020,6021,6022,6029,6035,6036,6141,6159,	327	
	6200,6211,6220, 6282,6311,6321,6324,	0_1	
	6331,6411,6711,6719,6722,6726,		
	6798,6799		