

Online Appendix

Investor Attention and Insider Trading

July 4, 2024

TABLE 1
Industry Classifications

This table reports the distribution of firms in our sample based on the Fama–French 17-industry classifications. Panel A shows the percentage of firms in each classification and the difference between our Attention and Nonattention subsamples. Panel B shows the difference in average monthly ABSVI between the purchase and sale months. The notations, a and c, denote significance at the 1% and 10% levels, respectively.

Panel A: Sample Distribution

	<u>Non-attention Sample</u>	<u>Attention firms</u>
Food	1.24%	2.04%
Mining and minerals	1.49%	1.44%
Oil and petrol products	4.26%	4.21%
Textiles, apparel, and footwear	0.98%	1.61%
Consumer duration	1.40%	2.10%
Chemicals	1.36%	1.82%
Drugs, soap, perfume, tobacco	4.68%	5.50%
Construction	1.85%	2.51%
Steel	0.59%	1.03%
Fabricated products	0.57%	0.65%
Machinery and business equipment	6.84%	11.61%
Automobile	1.00%	1.48%
Transportation	3.01%	2.99%
Utilities	1.83%	2.48%
Retail stores	3.20%	5.48%
Financial Institutions	41.00%	20.57%
Other	24.71%	32.50%

Panel B: Average Monthly ABSVI

	Purchases (1)	Sales (2)	Diff. (1)–(2)
Food	0.962	1.039	-0.077 ^a
Mining and minerals	1.002	1.081	-0.079 ^a
Oil and petrol products	0.994	1.079	-0.085 ^a
Textiles, apparel, and footwear	0.957	1.019	-0.062 ^a
Consumer duration	0.964	1.032	-0.068 ^a
Chemicals	0.987	1.001	-0.014
Drugs, soap, perfume, tobacco	1.007	1.051	-0.044 ^c
Construction	0.979	1.043	-0.064 ^a
Steel	0.976	0.999	-0.023
Fabricated products	0.962	1.045	-0.083 ^a
Machinery and business equipment	1.008	1.076	-0.068 ^a
Automobile	0.962	0.976	-0.014
Transportation	0.987	1.029	-0.042 ^c
Utilities	0.992	1.055	-0.063 ^a
Retail stores	0.973	0.997	-0.024
Financial institutions	0.980	1.041	-0.061 ^a
Other	0.995	1.069	-0.074 ^a
Overall sample	0.984	1.054	-0.070 ^a

TABLE 2
Returns to Insider Trading Portfolio Strategies

This table shows monthly average returns to portfolio strategies based on insider trading. For the unconditional portfolio strategy (Unconditional), we buy a stock if the firm-month observation corresponds to an insider purchase and sell a stock if the observation corresponds to an insider sale. For the conditional portfolio strategy (Conditional), we condition our positions on both insider trading and ABSVI; we buy (sell) a stock if the firm-month observation corresponds to an insider purchase (sale) and ABSVI is greater (less) than one, where ABSVI is the abnormal Google search volume index on a stock's ticker symbol. We rebalance the portfolios at the end of every month and report the abnormal returns for the subsequent month. The table reports the value- and equal-weighted returns and the risk-adjusted alphas for the CAPM, Fama–French, Carhart four-factor, and a five-factor model (Carhart and the Pastor–Stambaugh liquidity factor). Standard errors at the portfolio level are in parentheses. The notations, a, b, and c, denote significance at the 1%, 5%, and 10% levels, respectively.

	<u>Value weighted</u>			<u>Equal weighted</u>		
	<u>Unconditional</u>	<u>Conditional</u>	<u>Diff.</u>	<u>Unconditional</u>	<u>Conditional</u>	<u>Diff.</u>
Average Returns%	0.829 ^a (0.221)	1.276 ^a (0.285)	0.447 ^b (0.224)	1.702 ^a (0.169)	2.361 ^a -0.4132	0.659 ^b (0.328)
CAPM Alpha	0.732 ^a (0.001)	1.154 ^a (0.288)	0.422 ^c (0.229)	1.677 ^a (0.173)	2.338 ^a (0.422)	0.661 ^c (0.366)
Fama–French Alpha	0.827 ^a (0.206)	1.268 ^a (0.275)	0.441 ^c (0.228)	1.774 ^a (0.155)	2.483 ^a (0.408)	0.709 ^b (0.359)
Carhart Alpha	0.897 ^a (0.194)	1.339 ^a (0.268)	0.442 ^c (0.230)	1.844 ^a (0.139)	2.499 ^a (0.409)	0.655 ^c (0.360)
5-factor Alpha	0.864 ^a (0.204)	1.367 ^a (0.282)	0.503 ^b (0.241)	1.921 ^a (0.146)	2.692 ^a (0.428)	0.771 ^b (0.378)

TABLE 3
Returns Regression Analysis Following Insider Trade and Retail Attention and Insider Trading
Alternative Retail Attention Measures

This table replicates our baseline regressions Tables 3 and 4 using alternative ABSVI^{TS} obtained from deHaan, Lawrence, and Litjen (2024). Panel A compares the distributions of ABSVI with ABSVI^{TS}. Panel B reports the returns regression analysis following insider trade. Exret is the excess return. Control variables are as defined in Table 3, which include Log(Size), Log(BM), Adv/Sales, Log(Price), Log(Turnover), Ret_{m,t+1}, CAR_{t-3,t-1}, and CAR_{t-12,t-1}. Panel C presents the results of Probit and Tobit regressions that analyze the likelihood and quantity of insider trading. Control variables are as defined in Table 4, which include Log(Size), Adv/Sales, Ret_{i,t}, Ret_{m,t}, Log(Price), and Log(Turnover). Standard errors at the portfolio level are in parentheses. The notations, a, b, and c, denote significance at the 1%, 5%, and 10% levels, respectively.

Panel A: Summary Statistics

	<u>Summary Statistics</u>		
	Mean	Median	Std. Dev.
ABSVI	1.032	0.935	1.917
ABSVI ^{TS}	1.053	1.005	1.211

Panel B: Returns Regression Analysis Following Insider Trade

Excess Ret _{t+1} (%)	(1)	(2)
I _t	-0.707 ^b (0.284)	-0.594 ^c (0.487)
Log(ABSVI ^{TS}) _t	-0.979 ^b (0.497)	-1.176 ^c (0.691)
Log(ABSVI ^{TS}) _t *I _t	-0.321 ^b (0.148)	-0.576 ^b (0.271)
Log (ABDMR) _t		0.173 (0.289)
Log (ABDMR) _t *I _t		0.183 ^c (0.110)
Anews		0.143 (0.213)
Controls	Yes	Yes
Year FE	Yes	Yes
Firm FE	Yes	Yes
Obs	14,793	7,509
R ²	0.357	0.361

Panel C: Retail Attention and Insider Trading

	<u>Probit</u>	<u>Tobit</u>	<u>Probit</u>	<u>Tobit</u>
	<u>Sale Indicator</u>	<u>Shares Sold</u>	<u>Purchase Indicator</u>	<u>Shares Purchased</u>
	(1)	(2)	(3)	(4)
Log(ABSVI ^{TS}) _t	0.140 ^b (0.055)	15.446 ^a (4.494)	-0.164 ^a (0.057)	-26.262 ^c (15.103)
Log(ABDMR)	-0.051 ^b (0.022)	-6.527 ^c (3.381)	0.062 ^b (0.031)	11.005 ^c (6.041)
Anews	-0.132 (0.091)	-8.378 ^b (4.278)	0.134 (0.099)	24.202 (16.369)
Controls	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
Obs	7,642	7,642	7,642	7,642
Pseudo R ²	0.129	0.019	0.126	0.026

TABLE 4

SEC Enforcement Actions and Opportunistic Insider Trading – Alternative Specifications

This table explores the link between SEC litigation and opportunistic insider trading using alternative specifications. It reports the results of corresponding Probit and Tobit regressions in which the dependent variables are the Sale Indicators (columns (1)–(3)) and Shares Sold (columns (4)–(6)). Δ SEC Intensity is the natural logarithmic difference between one plus the number of SEC enforcement releases against insider trading and one plus the median number of SEC insider trading releases over the past six months. $\text{Log}(\text{ABSVI})$ is the natural logarithm of the abnormal Google search volume index on a stock's ticker symbol. Control variables include $\text{Log}(\text{Size})$, $\text{Log}(\text{BM})$, Adv/Sales , the firm's contemporaneous monthly return ($\text{Ret}_{i,t}$), the value-weighted market return ($\text{Ret}_{m,t}$), $\text{Log}(\text{Price})$, and $\text{Log}(\text{Turnover})$ as defined in Table 4. Clustered standard errors by firm and month are in parentheses. The notations, a, b, and c, denote significance at the 1%, 5%, and 10% levels, respectively.

		<u>Probit</u>			<u>Tobit</u>	
		<u>Sale Indicator</u>			<u>Shares Sold</u>	
	(1)	(2)	(3)	(4)	(5)	(6)
Δ SEC Intensity _{t-1}	-0.041 ^b (0.021)	-0.046 ^c (0.024)	-0.049 ^c (0.028)	-9.501 ^a (3.371)	-7.390 ^b (3.111)	-8.153 ^b (6.778)
$\text{Log}(\text{ABSVI})_{i,t}$		0.128 ^b (0.062)	0.121 ^b (0.059)		11.871 ^b (5.958)	10.948 ^c (5.637)
$\text{Log}(\text{ABSVI})_{i,t} * \Delta$ SEC Intensity _{t-1}			0.016 ^b (0.008)			4.423 ^b (2.108)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
Obs	129,430	91,471	91,471	129,430	91,471	91,471
Pseudo R ²	0.119	0.110	0.111	0.003	0.004	0.004

TABLE 5

Retail Investor Attention and Underpricing

This table presents the results of replicating column (3) of Table 3 from the following monthly panel regression for the sample of firm-month observations with insider trading:

$$Exret_{i,t+1} = \alpha + \beta_1 \text{Log}(ABS\text{VI})_{i,t} \cdot I_{\text{lowret}}_{i,t} + \beta_2 \cdot I_{\text{Buy}}_{i,t} + \beta_3 \text{Log}(ABS\text{VI})_{i,t} + \beta_4 \text{Log}(ABS\text{VI})_{i,t} \cdot I_{\text{Buy}}_{i,t} + \beta_5 \text{Log}(ABS\text{VI})_{i,t} \cdot I_{\text{Buy}}_{i,t} \cdot I_{\text{lowret}}_{i,t} + \beta_6 \text{Log}(ABS\text{VI})_{i,t} \cdot I_{\text{lowret}}_{i,t} + \beta_7 I_{\text{Buy}}_{i,t} \cdot I_{\text{lowret}}_{i,t} + \gamma \cdot X_{i,t} + \varepsilon_{i,t}$$

where $Exret$ is the excess returns. $I_{\text{Buy}}_{i,t}$ equals one if the firm-month observation corresponds to a net insider purchase month, and zero if it corresponds to a net insider sales month. I_{lowret} equals one if the month t stock return is below the 1st (column 1), 5th (column 2), 10th (column 3), or 20th percentile (column 4) of return distribution, respectively. $\text{Log}(ABS\text{VI})$ is the natural logarithm of the abnormal Google search volume index on a stock's ticker symbol. Control variables include $\text{Log}(\text{Size})$, $\text{Log}(\text{BM})$, Adv/Sales , $\text{Log}(\text{Price})$, $\text{Log}(\text{Turnover})$, $\text{Ret}_{m,t+1}$, $\text{CAR}_{t-3,t-1}$, and $\text{CAR}_{t-12,t-1}$ as defined in Table 3. Two-way (firm and month) clustered standard errors at the firm level are in parentheses. The notations, a, b, and c, denote significance at the 1%, 5%, and 10% levels, respectively.

<u>Exret_{i,t+1} (%)</u>	<u>Lowret: 1st pctl</u>	<u>Lowret: 5th pctl</u>	<u>Lowret: 10th pctl</u>	<u>Lowret: 20th pctl</u>
	(1)	(2)	(3)	(4)
$\text{Log}(ABS\text{VI})_{i,t} \cdot I_{\text{Buy}}_{i,t} \cdot I_{\text{lowret}}_{i,t}$	4.947 (3.968)	2.501 (2.304)	1.067 (0.801)	0.528 (0.527)
$I_{\text{Buy}}_{i,t}$	0.626 ^a (0.097)	0.583 ^a (0.098)	0.517 ^a (0.099)	0.408 ^a (0.103)
$I_{\text{lowret}}_{i,t}$	0.751 (0.479)	0.531 ^c (0.285)	0.592 ^a (0.220)	0.489 ^a (0.128)
$I_{\text{Buy}}_{i,t} \cdot I_{\text{lowret}}_{i,t}$	3.014 (1.924)	0.930 (0.586)	0.801 ^b (0.361)	0.790 ^a (0.234)
$\text{Log}(ABS\text{VI})_{i,t}$	-1.503 ^c (0.861)	-1.378 (0.859)	-1.206 (0.865)	-1.463 (0.892)
$\text{Log}(ABS\text{VI})_{i,t} \cdot I_{\text{Buy}}_{i,t}$	0.436 ^b (0.190)	0.311 ^c (0.163)	0.259 ^b (0.129)	0.278 ^b (0.131)
$\text{Log}(ABS\text{VI})_{i,t} \cdot I_{\text{lowret}}_{i,t}$	-0.807 (2.962)	-0.713 (0.872)	-0.573 (0.488)	-0.369 (0.277)
Controls	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes
Obs	90,621	90,621	90,621	90,621
R ²	0.246	0.246	0.247	0.247

TABLE 6

Retail Investor Attention and Insider Trading, Excluding 10b5-1 Plan Trades

This table shows additional robustness tests replicating Table 4, excluding 10b5-1 trades. $\text{Log}(\text{ABSVI})$ is the natural logarithm of the abnormal Google search volume index on a stock's ticker symbol. In column (1), the dependent variable is the Sale Indicator, which equals one if a firm-month is a net sale month. In column (2), the dependent variable is the number of shares sold by all insiders (in thousands) for each firm-month observation. In column (3), the dependent variable is the Purchase Indicator, which equals one if a firm-month is a net purchase month. In column (4), the dependent variable is the number of shares bought by all insiders (in thousands) for each firm-month observation. Control variables include $\text{Log}(\text{Size})$, $\text{Log}(\text{BM})$, Adv/Sales , firm contemporaneous return ($\text{Ret}_{i,t}$), the value-weighted market return ($\text{R}_{m,t}$), $\text{Log}(\text{Price})$, and $\text{Log}(\text{Turnover})$ as defined in Table 4. Two-way (firm and month) clustered standard errors at the firm level are in parentheses. The notations, a and b, denote significance at the 1% and 5% levels, respectively.

	<u>Probit</u> <u>Sale Indicator</u>	<u>Tobit</u> <u>Shares Sold</u>	<u>Probit</u> <u>Purchase Indicator</u>	<u>Tobit</u> <u>Shares Purchased</u>
	(1)	(2)	(3)	(4)
$\text{Log}(\text{ABSVI})_{i,t}$	0.269 ^a (0.067)	15.987 ^b (7.727)	-0.263 ^s (0.077)	-23.887 ^b (11.712)
Controls	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
Obs	91,471	91,471	91,471	91,471
Pseudo R ²	0.345	0.024	0.232	0.030

TABLE 7
Retail Investor Attention and Insider Trading: A Decomposition

This table reports the effects of SVI components: fundamental and nonfundamental. In columns (1)–(3), the dependent variable is the Sale (Purchase) Indicator that equals one if a firm-month is a net sale (purchase) month. In columns (4)–(6), the dependent variable is the number of shares sold (bought) by all insiders (in thousands) for each firm-month observation. $\text{Log}(\text{ABSVI})_{\text{fund}}$ is the fundamental component and $\text{Log}(\text{ABSVI})_{\text{resid}}$ is the residual that corresponds to investor sentiment. In all specifications, control variables include $\text{Log}(\text{Size})$, $\text{Log}(\text{BM})$, firm contemporaneous return ($\text{Ret}_{i,t}$), value-weighted market return ($\text{Ret}_{m,t}$), $\text{Log}(\text{Price})$, and $\text{Log}(\text{Turnover})$ as defined in Table 4. Two-way (firm and month) clustered standard errors at the firm level are in parentheses. The notations, a and b, denote significance at the 1% and 5% levels, respectively.

Panel A: Insider Sales

		<u>Probit</u>			<u>Tobit</u>	
		<u>Sale Indicator</u>			<u>Shares Sold</u>	
	(1)	(2)	(3)	(4)	(5)	(6)
$\text{Log}(\text{ABSVI})_{\text{fund},i,t}$	0.108 (0.077)		0.110 (0.077)	11.949 (20.115)		11.967 (20.172)
$\text{Log}(\text{ABSVI})_{\text{resid},i,t}$		0.120 ^a (0.042)	0.121 ^a (0.042)		23.886 ^b (11.852)	24.345 ^b (12.207)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
Obs	18,063	18,063	18,063	18,063	18,063	18,063
Pseudo R ²	0.099	0.100	0.100	0.001	0.001	0.001

Panel B: Insider Purchases

		<u>Probit</u>			<u>Tobit</u>	
		<u>Purchase Indicator</u>			<u>Shares Purchased</u>	
	(1)	(2)	(3)	(4)	(5)	(6)
$\text{Log}(\text{ABSVI})_{\text{fund},i,t}$	-0.115 (0.076)		-0.117 (0.076)	-21.265 (20.888)		-21.264 (20.888)
$\text{Log}(\text{ABSVI})_{\text{resid},i,t}$		-0.137 ^a (0.041)	-0.138 ^a (0.041)		-26.265 ^b (10.217)	-26.648 ^b (10.396)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
Obs	18,063	18,063	18,063	18,063	18,063	18,063
Pseudo R ²	0.099	0.099	0.100	0.016	0.017	0.017

TABLE 8

Retail Investor Attention and Insider Trading, Robustness Checks

This table shows additional robustness tests while replicating Table 4. $\text{Log}(\text{ABSVI})$ is the natural logarithm of the abnormal Google search volume index on a stock's ticker symbol. Panel A includes only nonearnings announcement months. In column (1), the dependent variable is the Sale Indicator, which equals one if a firm-month is a net sale month. In column (2), the dependent variable is the number of shares sold by all insiders (in thousands) for each firm-month observation. In column (3), the dependent variable is the Purchase Indicator, which equals one if a firm-month is a net purchase month. In column (4), the dependent variable is the number of shares bought by all insiders (in thousands) for each firm-month observation. Panel B excludes insider sales within one and two weeks before the Friday release of a negative 8-K filing. In columns (1) and (3), the dependent variable is the Sale Indicator. In column (2) and (4), the dependent variable is the number of shares sold by all insiders (in thousands) for each firm-month observation. Control variables include $\text{Log}(\text{Size})$, $\text{Log}(\text{BM})$, Adv/Sales , firm contemporaneous return ($\text{Ret}_{i,t}$), the value-weighted market return ($\text{R}_{m,t}$), $\text{Log}(\text{Price})$, and $\text{Log}(\text{Turnover})$ as defined in Table 4. Two-way (firm and month) clustered standard errors at the firm level are in parentheses. The notations, a and b, denote significance at the 1% and 5% level, respectively.

Panel A: Nonearnings Announcement Months

	<u>Probit</u>	<u>Tobit</u>	<u>Probit</u>	<u>Tobit</u>
	<u>Sale Indicator</u>	<u>Shares Sold</u>	<u>Purchase Indicator</u>	<u>Shares Purchased</u>
	(1)	(2)	(3)	(4)
$\text{Log}(\text{ABSVI})_{i,t}$	0.183 ^b (0.077)	14.657 ^a (4.967)	-0.169 ^b (0.077)	-18.648 ^a (6.945)
Controls	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
Obs	61,322	61,322	61,322	61,322
Pseudo R ²	0.102	0.002	0.102	0.013

Panel B: Excluding Insider Sales Before Friday Negative 8-K Filings

	<u>Excluding insider sales within 1 week</u>		<u>Excluding insider sales within 2 weeks</u>	
	<u>Probit</u>	<u>Tobit</u>	<u>Probit</u>	<u>Tobit</u>
	<u>Sale Indicator</u>	<u>Shares Sold</u>	<u>Sale Indicator</u>	<u>Shares Sold</u>
	(1)	(2)	(3)	(4)
$\text{Log}(\text{ABSVI})_{i,t}$	0.101 ^b (0.049)	10.381 ^b (4.734)	0.099 ^b (0.041)	10.164 ^b (4.403)
Controls	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
Obs	91,471	91,471	91,471	91,471
Pseudo R ²	0.101	0.007	0.102	0.003

TABLE 9

Attention and Insider Trading, Identification

This table reports the IV test of our baseline model. Panel A shows the average abnormal SVI and insider trading between months of daily_news_pressure (distraction months) and other months. ABSVI is the abnormal Google search volume index on a stock's ticker symbol. Shares Purchased (Sold) is the average number of shares bought (sold), in thousands. Panel B presents the first-stage regression to decompose $\text{Log}(\text{ABSVI})$. $\text{Log}(\text{newspressure})_t$ is the natural logarithm of one plus number of daily-news_pressure in a month, whereas the daily-news_pressure is defined as the news distraction indicator if the concentration of TV news broadcasts on non-market related events is at the top 5% based on Eisensee and Strömberg (2007) covering the period July 2004 to December 2018. $\text{Log}(\text{Size})$ is the natural logarithm of a firm's previous year-end market value. $\text{Log}(\text{BM})$ is the natural logarithm of the previous year-end book-to-market equity value ratio. $\text{Earn}_{i,t}$ is an indicator variable if a firm makes an earnings announcement. Other controls include a firm's previous month return ($\text{Ret}_{i,t-1}$), absolute value of its contemporaneous return [$|\text{Ret}_{i,t}|$], the value-weighted market return ($\text{Ret}_{m,t-1}$), absolute value of $\text{SUE}_{i,t-1}$ [$|\text{SUE}_{i,t-1}|$], and $\text{Log}(\# \text{ of earningnews}_{t-1})$, defined as the natural logarithm of one plus number of industry-wide earnings announcements based on the Fama–French 17-industry classifications. Two-way (firm and month) clustered standard errors at the firm level are in parentheses. The notations, a and b, denote significance at the 1% and 5% levels, respectively.

Panel A: Attention and Insider Trading in Distraction and Nondistraction Months

<u>Monthly (Firm-level)</u>	<u>Distraction Months</u>	<u>Other Months</u>	<u>Diff.</u>
ABSVI	0.992	1.053	-0.061 ^a
# of months	10,074	67,982	

Panel B: Attention and Insider Trading, Identification (First Stage)

	<u>Log(ABSVI)</u>
Log(newspressure) _t	-0.008 ^a (0.002)
Log(Size)	0.045 ^a (0.002)
Log(BM)	-0.006 (0.004)
Earn _{i,t}	0.079 ^a (0.006)
Ret _{i,t-1}	0.021 (0.027)
Ret _{i,t}	0.005 (0.036)
Ret _{m,t-1}	0.264 ^a (0.079)
SUE _{i,t-1}	1.257 ^a (0.432)
Log(# of earningnews _{t-1})	-0.025 ^a (0.008)
Year FE	Yes
Industry FE	Yes
Obs	67,084
R ²	0.027

TABLE 10
Instrumental Variables Analysis

This table presents IV analysis of insider trading variables on the instrumented $\text{Log}(\text{ABSVI})_t$. All control variables are included from the first-stage regression and defined in Appendix Table 9. Two-way (firm and month) clustered standard errors at the firm level are in parentheses. The notations, a and b, denote significance at the 1% and 5% levels, respectively.

	<u>Probit</u> <u>Sale Indicator</u>	<u>Tobit</u> <u>Shares Sold</u>	<u>Probit</u> <u>Purchase Indicator</u>	<u>Tobit</u> <u>Shares Purchased</u>
	(1)	(2)	(3)	(4)
$\text{Log}(\text{ABSVI})_t$	6.045 ^a (2.068)	66.331 ^b (26.981)	-5.854 ^b (2.562)	-36.305 ^b (16.149)
Controls	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
Obs	67,084	67,084	67,084	67,084

TABLE 11

Retail Investor Attention and Insider Trading, by Regulatory Regimes

This table shows additional robustness tests. We consider two time periods with different regulatory regimes: the Bush administration (Panel A) and the Obama administration (Panel B). In column (1), the dependent variable is the Sale Indicator that equals one if a firm-month is a net sale month. In column (2), the dependent variable is the number of shares sold by all insiders (in thousands) for each firm-month observation. In column (3), the dependent variable is the Purchase Indicator that equals one if a firm-month is a net purchase month. In column (4), the dependent variable is the number of shares bought by all insiders (in thousands) for each firm-month observation. $\text{Log}(\text{ABSVI})_{i,t}$ is the natural logarithm of the abnormal Google search volume index on a stock's ticker symbol. Control variables include $\text{Log}(\text{Size})$, $\text{Log}(\text{BM})$, Adv/Sales , firm contemporaneous return ($\text{Ret}_{i,t}$), the value-weighted market return ($\text{R}_{m,t}$), $\text{Log}(\text{Price})$, and $\text{Log}(\text{Turnover})$ defined in Table 4. Two-way (firm and month) clustered standard errors at the firm level are in parentheses. The notations, a and b, denote significance at the 1% and 5% levels, respectively.

Panel A: 2004–2008 (G. W. Bush Administration)

	<u>Probit</u> <u>Sale Indicator</u>	<u>Tobit</u> <u>Shares Sold</u>	<u>Probit</u> <u>Purchase Indicator</u>	<u>Tobit</u> <u>Shares Purchased</u>
	(1)	(2)	(3)	(4)
$\text{Log}(\text{ABSVI})_{i,t}$	0.071 ^a (0.012)	6.685 ^a (2.157)	-0.068 ^a (0.012)	-8.903 ^b (4.252)
Controls	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
Obs	23,892	23,892	23,892	23,892
Pseudo R ²	0.085	0.004	0.086	0.013

Panel B: 2009–2016 (Obama Administration)

	<u>Probit</u> <u>Sale Indicator</u>	<u>Tobit</u> <u>Shares Sold</u>	<u>Probit</u> <u>Purchase Indicator</u>	<u>Tobit</u> <u>Shares Purchased</u>
	(1)	(2)	(3)	(4)
$\text{Log}(\text{ABSVI})_{i,t}$	0.161 ^a (0.045)	14.758 ^b (7.164)	-0.157 ^a (0.051)	-31.278 ^a (10.467)
Controls	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
Obs	36,924	36,924	36,924	36,924
Pseudo R ²	0.106	0.002	0.105	0.014