

Internet Appendix for “Decoding Inside Information”*

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Figure A1: ABC, Inc. Example

This figure plots the stock prices of ABC, Inc. between December 1997 and January 1998. Prices are normalized to equal 1 on the day of Mr. Johnson's (opportunistic insider) trade (12/07/1997 = 1).

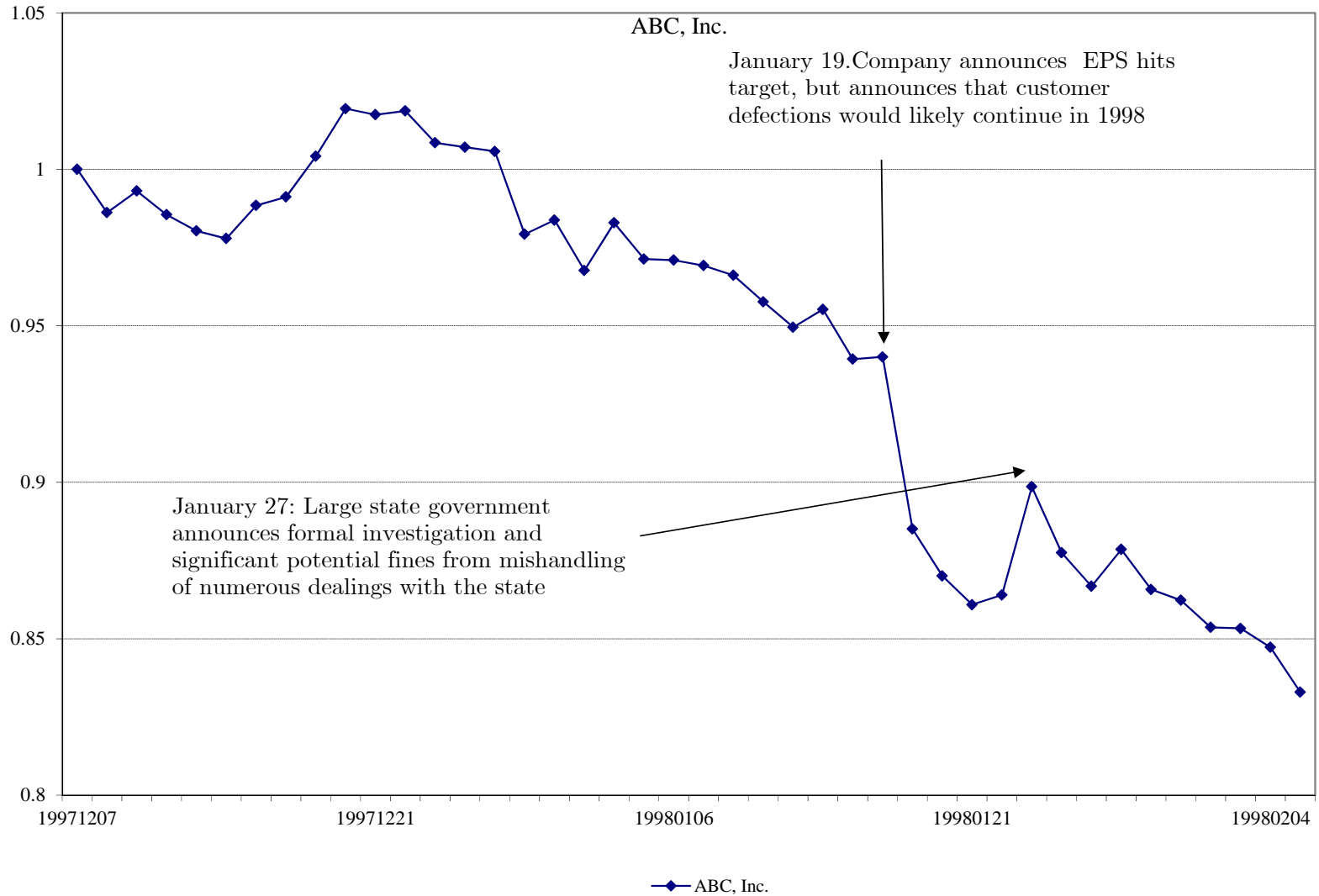
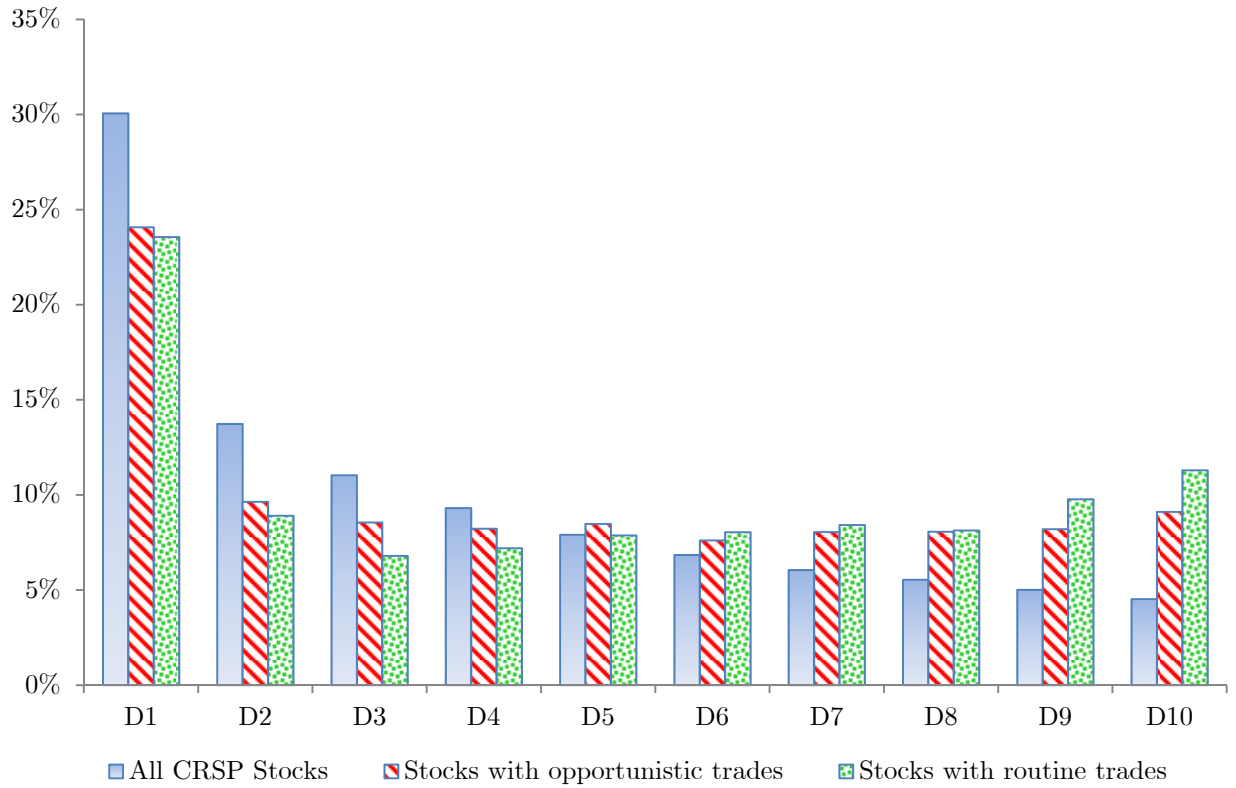


Figure A2: Size distribution

This figure plots the distribution of market capitalization of the opportunistic and routine trade sample. Every calendar month we assign stocks to size deciles using NYSE breakpoint. We plot the % of stocks in each size bin between 1989 and 2007. D1 refers to the smallest decile of stocks, and D10 refers to the largest decile of stocks.



**Table A1: Performance of Routine and Opportunistic Trades,
Rolling Window Classification**

This table reports pooled regressions of returns on indicators of routine and opportunistic trades in the prior month, from 1989-2007. The dependent variable in each is future one-month returns in month $t+1$ (RET). Routine and Opportunistic traders are here defined using rolling window definitions. Specifically, at any point that an insider has a three year window of trades (trades in three consecutive years), we first classify her based on this three year window as opportunistic or routine (as described in Table I). We then roll this three year window forward a year, and reclassify the insider each year (as long as we have the three consecutive years of trading). If we do not have the three consecutive years in the following year, we retain the insider's last classification until we do. Opportunistic Buy is a categorical variable equal to one if there were any opportunistic buys on a given firm in the prior month (month t), and zero otherwise. Routine Buy is a categorical variable equal to one if there were any routine buys on a given firm in the prior month (month t), and zero otherwise. Opportunistic Sell and Routine Sell are defined equivalently for insider sales. Size and BM are the natural logarithms of the firm characteristics of market equity and book-to-market of the given firm. Past Month (Year) Returns are the return of the given firm over the prior month (year, excluding the prior month ($t-2, t-12$)). Month fixed effects (Month) are included where indicated. Standard errors clustered at the firm level. t -statistics are shown below the estimates, and 1%, 5%, and 10% statistical significance are indicated with ***, **, and *, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
<i>Opportunistic Buys</i>	1.337*** (8.69)	0.881*** (5.06)	0.715*** (4.15)			
<i>Routine Buys</i>	0.787*** (4.63)	0.197 (1.07)	0.052 (0.29)			
<i>Opportunistic Sells</i>				-1.303*** (-10.01)	-0.784*** (-5.39)	-0.605*** (-4.30)
<i>Routine Sells</i>				-0.626*** (-3.53)	-0.082 (-0.44)	-0.009 (-0.05)
<i>Size</i>		-0.225*** (-5.23)	-0.199*** (-4.62)		-0.226*** (-5.24)	-0.199*** (-4.61)
<i>BM</i>		0.364*** (3.18)	0.376*** (3.37)		0.372*** (3.24)	0.384*** (3.43)
<i>Past Month Returns</i>		-0.031*** (-4.02)	-0.049*** (-6.11)		-0.031*** (-3.97)	-0.049*** (-6.07)
<i>Past Year Returns</i>		0.005*** (3.68)	0.006*** (4.72)		0.005*** (3.74)	0.006*** (4.75)
Fixed Effect			Month			Month
Number of observations	52,444	48,460	48,460	52,444	48,460	48,460

Table A2: Portfolio Returns to Insider Trades, Young Versus Old Companies

This table shows the returns to insider buys and insider sells in young companies (those insider trades that are made within three years of the company's first appearance in CRSP) and old companies (those insider trades that are made three or more years after the company's first appearance in CRSP). The sample period is 1989-2007. A firm is included in the buy (sell) portfolio in month (t+1) if any of its insiders bought (sold) on the firm in month t. At the end of the month (t+1), we rebalance the portfolios based on new insider trades. Below are the monthly returns to and alphas on these buy and sell portfolios, in percentages, shown for both equal (in Panel A) and value weighting (in Panel B). t -statistics are shown in parentheses, and 1%, 5%, and 10% statistical significance are indicated with ***, **, and *, respectively.

	Young Companies			Old Companies			Young Minus Old		
Panel A: Equal weights	Buys	Sells	Buys-Sells	Buys	Sells	Buys-Sells	Buys	Sells	Buys-Sells
Average returns	1.73	0.56	1.17	1.95	0.75	1.20	-0.21	-0.18	-0.03
Standard dev.	6.55	8.07	3.45	5.27	5.34	2.27	2.94	4.11	3.02
CAPM alpha	0.91*** (3.62)	-0.38 (-1.28)	1.29*** (6.70)	1.20*** (6.37)	-0.04 (-0.28)	1.24*** (9.22)	-0.29 (-1.68)	-0.34 (-1.48)	0.05 (0.28)
Fama-French alpha	0.95*** (4.61)	-0.19 (-1.04)	1.14 (6.82)	1.04*** (7.34)	-0.11 (-1.51)	1.15*** (8.92)	-0.09 (-0.64)	-0.08 (-0.45)	-0.01 (-0.09)
Carhart alpha	1.28*** (6.70)	0.05 (0.31)	1.22*** (7.22)	1.31*** (10.45)	-0.10 (-1.36)	1.41*** (12.74)	-0.03 (-0.22)	0.15 (0.89)	-0.19 (-1.14)
	Young Companies			Old Companies			Young Minus Old		
Panel B: Value weights	Buys	Sells	Buys-Sells	Buys	Sells	Buys-Sells	Buys	Sells	Buys-Sells
Average returns	0.96	0.74	0.22	1.07	0.64	0.42	-0.11	0.10	-0.21
Standard dev.	6.67	8.53	4.47	4.95	4.77	2.25	4.58	5.63	4.64
CAPM alpha	0.10 (0.43)	-0.25 (-0.81)	0.34 (1.33)	0.29*** (2.55)	-0.14** (-2.35)	0.43*** (3.18)	-0.20 (-0.73)	-0.11 (-0.34)	-0.09 (-0.34)
Fama-French alpha	0.22 (1.13)	0.05 (0.22)	0.17 (0.73)	0.23** (2.03)	-0.11* (-1.87)	0.33** (2.56)	0.00 (-0.01)	0.16 (0.68)	-0.16 (-0.60)
Carhart alpha	0.21 (1.05)	-0.04 (-0.19)	0.26 (1.04)	0.35*** (3.20)	-0.15*** (-2.59)	0.50*** (3.97)	-0.14 (-0.58)	0.11 (0.46)	-0.24 (-0.90)

Table A3: Portfolio Returns to Insider Trades, Young Versus Old Insiders

This table shows the returns to buys and sells of young insiders (those insider trades that are made within three years of a given insider's first trade in the database) and of old insiders (those insider trades that are made three or more years after a given insider's first trade in the database). The sample period is 1989-2007. A firm is included in the buy (sell) portfolio in month (t+1) if any of its insiders bought (sold) on the firm in month t. At the end of the month (t+1), we rebalance the portfolios based on new insider trades. Below are the monthly returns to and alphas on these buy and sell portfolios, in percentages, shown for both equal (in Panel A) and value weighting (in Panel B). *t*-statistics are shown in parentheses, and 1%, 5%, and 10% statistical significance are indicated with ***, **, and *, respectively.

Panel A: Equal weights	Young Insiders			Old Insiders			Young Minus Old		
	Buys	Sells	Buys-Sells	Buys	Sells	Buys-Sells	Buys	Sells	Buys-Sells
Average returns	1.95	0.65	1.30	1.98	0.83	1.14	0.00	-0.18	0.17
Standard dev.	5.70	6.18	2.59	5.53	5.44	3.22	2.15	1.84	2.08
CAPM alpha	1.17*** (5.67)	-0.20 (-1.04)	1.36*** (9.11)	1.26*** (5.24)	0.09 (0.51)	1.19*** (5.80)	-0.02 (-0.15)	-0.22* (-1.89)	0.18 (1.33)
Fama-French alpha	1.08*** (6.78)	-0.15 (-1.73)	1.23*** (9.17)	1.08*** (5.37)	0.02 (0.22)	1.08*** (5.48)	0.03 (0.24)	-0.15 (-1.43)	0.16 (1.19)
Carhart alpha	1.38*** (9.93)	-0.10 (-1.14)	1.48*** (12.64)	1.46*** (8.07)	0.02 (0.17)	1.47*** (8.36)	0.03 (0.20)	-0.08 (-0.79)	0.10 (0.72)
Panel B: Value weights	Young Insiders			Old Insiders			Young Minus Old		
	Buys	Sells	Buys-Sells	Buys	Sells	Buys-Sells	Buys	Sells	Buys-Sells
Average returns	1.09	0.58	0.52	1.09	0.70	0.32	-0.02	-0.18	0.21
Standard dev.	5.21	5.04	2.79	4.94	4.72	3.15	2.87	1.43	3.09
CAPM alpha	0.30** (2.38)	-0.22** (-2.45)	0.52*** (3.09)	0.37** (2.20)	-0.02 (-0.28)	0.35 (1.73)	-0.04 (-0.25)	-0.17 (-1.87)	0.18 (0.89)
Fama-French alpha	0.26** (2.07)	-0.13 (-1.63)	0.39** (2.43)	0.31* (1.86)	0.03 (0.38)	0.23 (1.22)	-0.02 (-0.13)	-0.15 (-1.61)	0.17 (0.84)
Carhart alpha	0.40*** (3.25)	-0.23*** (-3.07)	0.64*** (4.22)	0.49*** (3.03)	-0.04 (-0.49)	0.49*** (2.64)	-0.03 (-0.18)	-0.19 (-2.11)	0.22 (1.05)

Table A4: Portfolio Returns to Non-Classified Trades

This table shows the returns to the naïve insider mimicking portfolio (insider purchases minus insider sales) for the sample we employ in this paper, as well as for the sample of non-classified trades that do not enter our sample. The sample period is 1989-2007. A firm is included in the buy (sell) portfolio in month (t+1) if any of its insiders bought (sold) on the firm in month t. At the end of the month (t+1), we rebalance the portfolios based on new insider trades. Below are the value-weighted monthly returns to and alphas on these buy and sell portfolios, in percentages. *t*-statistics are shown in parentheses, and 1%, 5%, and 10% statistical significance are indicated with ***, **, and *, respectively.

	Naïve Insider Mimicking Portfolio (Buys-Sells)		
	Our universe	Non-classified	Our Minus Non-classified
Average Value-Weighted Return	0.61	0.37	0.24
Standard Deviation	4.89	2.32	4.78
	(1.90)	(2.43)	(0.77)
CAPM alpha	0.82	0.39	0.43
	(2.61)	(2.57)	(1.42)
Fama-French alpha	0.31	0.24	0.07
	(1.19)	(1.58)	(0.26)
Carhart alpha	0.28	0.47	-0.20
	(1.09)	(2.44)	(-0.60)

Table A6: Correlation Between Routine and Opportunistic Trades, 1989–2007

Pearson correlation coefficients are calculated over all months and over all available stocks for the following variables. # Opportunistic Buys is the number of opportunistic buys for the given firm and month, and # Routine Buys is the number of routine buys in the given firm in the given month. These variables are defined analogously for sells. Log(Size) is the log of market capitalization as of the end of the previous calendar month. Log(B/M) the log of the book-market ratio, which is the market value of equity divided by Compustat book value of equity. The timing of B/M follows Fama and French (1993) and is as of the previous December year-end. RET is the return in the prior 12 months before the month of trading for the given firm and month.

	<i># Opportunistic Buys</i>	<i># Routine Buys</i>	<i># Opportunistic Sells</i>	<i># Routine Sells</i>	<i>Log(Size)</i>	<i>Log(B/M)</i>	<i>RET</i>
<i># Opportunistic Buys</i>	1	-0.001	-0.029	-0.016	-0.079	0.066	-0.024
<i># Routine Buys</i>		1	-0.017	-0.008	-0.039	0.011	0.002
<i># Opportunistic Sells</i>			1	0.001	0.101	-0.059	0.015
<i># Routine Sells</i>				1	0.111	-0.091	0.005
<i>Log(Size)</i>					1	-0.436	0.122
<i>Log(B/M)</i>						1	-0.118
<i>RET</i>							1

**Table A7: Performance of Routine and Opportunistic Trades,
Waiting Until 11th Day of Following Month**

This table reports pooled regressions of returns on indicators of routine and opportunistic trades in the prior month, from 1989-2007. The dependent variable in each is future one-month returns, computed from the 11th day of the month subsequent to when insiders trade (i.e., month $t+1$) to the 10th day of the following month (i.e., month $t+2$). Routine and opportunistic trades are defined as in Table I. Opportunistic Buy is a categorical variable equal to one if there were any opportunistic buys on a given firm in the prior month (month t), and zero otherwise. Routine Buy is a categorical variable equal to one if there were any routine buys on a given firm in the prior month (month t), and zero otherwise. Opportunistic Sell and Routine Sell are defined equivalently for insider sales. Size and BM are the natural logarithms of the firm characteristics of market equity and book-to-market of the given firm. Past Month (Year) Returns are the return of the given firm over the prior month (year, excluding the prior month ($t-2, t-12$)). Month fixed effects (Month) are included where indicated. Standard errors clustered at the firm level. t -statistics are shown below the estimates, and 1%, 5%, and 10% statistical significance are indicated with ***, **, and *, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
<i>Opportunistic Buy</i>	1.43*** (7.86)	1.05*** (5.39)	1.00*** (5.26)			
<i>Routine Buy</i>	0.88*** (6.07)	0.35** (2.20)	0.20 (1.26)			
<i>Opportunistic Sell</i>				-1.46*** (-11.41)	-1.04*** (-7.45)	-0.90*** (-6.58)
<i>Routine Sell</i>				-0.59*** (-4.24)	-0.11 (-0.72)	-0.12 (-0.84)
<i>Size</i>		-0.16*** (-4.19)	-0.13*** (-3.34)		-0.17*** (-4.24)	-0.13*** (-3.38)
<i>BM</i>		0.44*** (3.93)	0.40*** (3.70)		0.44*** (3.97)	0.40*** (3.70)
<i>Past Month Returns</i>		0.01 (0.82)	-0.01 (-1.59)		0.01 (0.89)	-0.01 (-1.51)
<i>Past Year Returns</i>		0.00 (0.64)	0.00** (2.06)		0.00 (0.76)	0.00** (2.15)
Fixed Effect			Month			Month
Number of observations	52,444	48,460	48,460	52,444	48,460	48,460

Table A8: Trade-Weighted Portfolio Returns to Routine and Opportunistic Trades

This table shows the returns to buy and sell trade-weighted portfolios that follow the routine and opportunistic trades in our opportunistic universe from 1989-2007. Opportunistic and routine trades are defined as in Table I. A firm is included in the opportunistic buy portfolio, for example, in month (t+1) if any of its insiders placed an opportunistic buy on the firm in month t. At the end of the month (t+1), we rebalance the portfolios based on new insider trades. Below are the monthly returns to these opportunistic and routine buy and sell portfolios in percentages, shown for both equal and value weighting. Panels A and B shows results for dollar trade-weighted, using self-reported transaction prices and CRSP end of day transaction prices, while Panel C shows results using portfolio weights by respective % shares outstanding. *t*-statistics are shown in parentheses, and 1%, 5%, and 10% statistical significance are indicated with ***, **, and *, respectively.

Panel A: Dollar trade-size weighted (using self-reported transaction price from SEC)								
	Opportunistic Buys	Routine Buys	L/S Buys	Opportunistic Sells	Routine Sells	L/S Sells	Opportunistic (Buys-Sells)	Routine (Buys-Sells)
Average returns	2.18	1.50	0.69	0.93	1.50	-0.56	1.25	-0.0002
Standard dev.	5.75	5.29	5.60	7.75	6.48	5.87	7.55	6.68
CAPM alpha	1.32*** (4.28)	0.75** (2.42)	0.58 (1.54)	-0.15 (-0.37)	0.43 (1.50)	-0.58 (-1.47)	1.47*** (2.97)	0.32 (0.74)
Fama-French alpha	1.05*** (3.66)	0.46 (1.59)	0.59 (1.54)	-0.01 (-0.03)	0.67** (2.52)	-0.68* (-1.69)	1.06** (2.18)	-0.20 (-0.51)
Carhart alpha	1.18*** (4.02)	0.64** (2.16)	0.54 (1.38)	0.02 (0.06)	0.47* (1.75)	-0.44 (-1.09)	1.15** (2.30)	0.17 (0.43)
Panel B: Dollar trade-size weighted (using CRSP end of transaction-day price for transaction price)								
Average returns	2.09	1.45	0.64	0.90	1.45	-0.56	1.20	-0.001
Standard dev.	5.73	5.26	5.59	7.66	6.40	5.94	7.38	6.60
CAPM alpha	1.23*** (4.02)	0.71** (2.31)	0.52 (1.40)	-0.17 (-0.44)	0.40 (1.41)	-0.57 (-1.44)	1.40*** (2.89)	0.31 (0.75)
Fama-French alpha	0.94*** (3.37)	0.41 (1.43)	0.53 (1.40)	-0.06 (-0.16)	0.61** (2.30)	-0.67** (-1.65)	1.01** (2.10)	-0.19 (-0.49)
Carhart alpha	1.09*** (3.83)	0.58** (1.98)	0.51 (1.31)	0.01 (0.03)	0.42 (1.58)	-0.41 (-0.99)	1.08** (2.19)	0.16 (0.41)
Panel C: Percentage shares outstanding weighted								
Average returns	2.09	2.02	0.07	0.90	1.75	-0.85	1.20	0.27
Standard dev.	5.63	5.72	5.60	8.00	6.71	5.79	7.86	6.45
CAPM alpha	1.29*** (4.06)	1.24*** (3.74)	0.06 (0.15)	-0.24 (-0.60)	0.70** (2.21)	-0.94** (-2.44)	1.53*** (3.04)	0.53 (1.28)
Fama-French alpha	1.02*** (3.41)	0.96*** (3.19)	0.06 (0.16)	-0.10 (-0.28)	0.87*** (3.06)	-0.96** (-2.45)	1.12** (2.30)	0.09 (0.23)
Carhart alpha	1.15*** (3.76)	1.24*** (4.13)	-0.09 (-0.22)	0.07 (0.18)	0.75** (2.59)	-0.68* (-1.72)	1.09** (2.16)	0.49 (1.23)

Table A9: Impact of the Number of Routine and Opportunistic Trades

This table reports panel regressions of returns on continuous measures of the number of routine and opportunistic trades in the prior month, from 1989-2007. The dependent variable in each is future one-month returns (RET). Routine and opportunistic trades are defined as in Table I. Number of Opportunistic Buys is equal to the natural logarithm of one plus the number of opportunistic buys in the given firm for the prior month (so is equal to zero if there were zero trades). Number of Routine Buys is equal to the natural logarithm of one plus the number of routine buys in the given firm for the prior month (so is equal to zero if there were zero trades). Number of Opportunistic Sells and Number of Routine Sells are defined equivalently for insider sales. Size and BM are the natural logarithms of the firm characteristics of market equity and book-to-market of the given firm. Past Returns are the return of the given firm over the prior sixth month period. Month fixed effects (Month) are included where indicated. All standard errors are adjusted for clustering at the firm level, and t-stats using these clustered standard errors are included in parentheses below the coefficient estimates; 1%, 5%, and 10% statistical significance are indicated with ***, **, and *, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<i>Number of Opportunistic Buys</i>	0.95*** (6.77)	0.74*** (4.97)	0.66*** (4.56)				0.67*** (4.52)	0.61*** (3.97)	0.59*** (3.93)
<i>Number of Routine Buys</i>	0.39*** (4.09)	0.10 (0.92)	0.01 (0.12)				0.14 (1.37)	-0.02 (-0.16)	-0.05 (-0.43)
<i>Number of Opportunistic Sells</i>				-0.63*** (-10.29)	-0.43*** (-6.75)	-0.31*** (-4.97)	-0.49*** (-7.36)	-0.35*** (-5.21)	-0.25*** (-3.70)
<i>Number of Routine Sells</i>				-0.24*** (-3.64)	0.01 (0.17)	0.07 (0.97)	-0.12* (-1.75)	0.07 (0.99)	0.12 (1.64)
<i>Size</i>		-0.24*** (-5.43)	-0.20*** (-4.71)		-0.24*** (-5.66)	-0.22*** (-5.17)		-0.22*** (-5.18)	-0.20*** (-4.71)
<i>BM</i>		0.39*** (3.39)	0.39*** (3.52)		0.40*** (3.49)	0.42*** (3.69)		0.38*** (3.31)	0.39*** (3.51)
<i>Past Month Returns</i>		-0.03*** (-4.05)	-0.05*** (-6.14)		-0.03*** (-4.00)	-0.05*** (-6.10)		-0.03*** (-3.92)	-0.05*** (-6.04)
<i>Past Year Returns</i>		0.00*** (3.67)	0.01*** (4.71)		0.00*** (3.73)	0.01*** (4.75)		0.01*** (3.82)	0.01*** (4.79)
Fixed Effect			Month			Month			Month
Number of observations	52,444	48,460	48,460	52,444	48,460	48,460	52,444	48,460	48,460

Table A10: Performance of Routine and Opportunistic Trades across Exchanges

This table reports pooled regressions of returns on indicators of routine and opportunistic trades in the prior month, across various exchanges. The sample period is 1989-2007. The dependent variable in each is future one-month returns (RET). Routine and opportunistic trades are defined as in Table I. Opportunistic Buy is a categorical variable equal to one if there were any opportunistic buys on a given firm in the prior month, and zero otherwise. Routine Buy is a categorical variable equal to one if there were any routine buys on a given firm in the prior month, and zero otherwise. Opportunistic Sell and Routine Sell are defined equivalently for insider sales. Columns 1 and 2 show regressions run on the full sample across all exchanges (these are identical to Columns 3 and 6 of Table II). Columns 2 and 3 show regression run only on the subsample of NYSE stocks, while Columns 5 and 6 show regressions run only the subsample of NASDAQ stocks. Size and BM are the natural logarithms of the firm characteristics of market equity and book-to-market of the given firm. Past Month (Year) Returns are the return of the given firm over the prior month (year, excluding the prior month ($t-2, t-12$)). Month fixed effects (Month) are included where indicated. Standard errors clustered at the firm level. t -statistics are shown below the estimates, and 1%, 5%, and 10% statistical significance are indicated with ***, **, and *, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
	Baseline from paper (Across all exchanges)		NYSE stocks only	NASDAQ stocks only		
<i>Opportunistic Buy</i>	0.90*** (4.64)		1.21*** (3.78)		0.75** (2.25)	
<i>Routine Buy</i>	0.14 (0.81)		0.62** (2.42)		0.07 (0.25)	
<i>Opportunistic Sell</i>		-0.78*** (-5.67)		-0.84*** (-4.11)		-0.81*** (-3.47)
<i>Routine Sell</i>		0.04 (0.24)		-0.33 (-1.61)		0.23 (0.91)
<i>Size</i>	-0.20*** (-4.55)	-0.20*** (-4.70)	-0.15** (-2.53)	-0.16*** (-2.60)	-0.32*** (-3.42)	-0.34*** (-3.64)
<i>BM</i>	0.37*** (3.30)	0.38*** (3.42)	0.21 (1.45)	0.26* (1.79)	0.29 (1.44)	0.27 (1.35)
<i>Past Month Returns</i>	-0.05*** (-6.09)	-0.05*** (-6.03)	-0.02* (-1.67)	-0.02* (-1.66)	-0.05*** (-4.71)	-0.05*** (-4.66)
<i>Past Year Returns</i>	0.01*** (4.71)	0.01*** (4.80)	0.01* (1.90)	0.01* (1.84)	0.01*** (3.06)	0.01*** (3.20)
Fixed Effect	Month	Month	Month	Month	Month	Month
Number of observations	48,460	48,460	14,021	14,021	21,558	21,558

Table A11: Robustness Checks

This table reports pooled regressions of returns on indicators of routine and opportunistic trades in the prior month, from 1989-2007. The dependent variable in each is future one-month returns (RET). Routine and opportunistic trades are defined as in Table I. Opportunistic Buy is a categorical variable equal to one if there were any opportunistic buys on a given firm in the prior month, and zero otherwise. Routine Buy is a categorical variable equal to one if there were any routine buys on a given firm in the prior month, and zero otherwise. Opportunistic Sell and Routine Sell are defined equivalently for insider sales. Size and BM are the natural logarithms of market equity and book-to-market of the given firm. Columns 1 and 2 (3 and 4) include only stocks in the top (bottom) half of the market capitalization distribution, where market cap is measured in December of the prior year. Columns 5 and 6 (7 and 8) include only stocks in the top (bottom) half of the distribution of fraction of shares outstanding traded by insiders in the prior year. Columns 9 and 10 (11 and 12) include only those trades made within (outside) a 21-day trading window (+3 to +24 days) after an earnings announcement, while also excluding (including) any trades that occur up to 30 days before an M&A announcement. Month fixed effects (Month) are included where indicated. Standard errors clustered at the firm level. *t*-statistics are shown below the estimates, and 1%, 5%, and 10% statistical significance are indicated with ***, **, and *, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Large Stocks		Small Stocks		High Intensity Stocks		Low Intensity Stocks		Non-Blackout Only		Blackout Only	
<i>Opportunistic Buy</i>	0.55** (2.31)		0.80*** (2.78)		1.27*** (4.14)		0.56** (2.36)		1.28*** (3.81)		0.85*** (3.69)	
<i>Routine Buy</i>	0.08 (0.37)		-0.01 (-0.05)		0.46* (1.69)		-0.17 (-0.80)		0.34 (1.25)		0.14 (0.70)	
<i>Opportunistic Sell</i>		-0.55*** (-3.44)		-0.83*** (-3.29)		-1.13*** (-5.45)		-0.39** (-2.13)		-0.99*** (-4.43)		-0.78*** (-4.65)
<i>Routine Sell</i>		0.11 (0.62)		0.11 (0.37)		-0.03 (-0.14)		0.07 (0.36)		-0.21 (-0.90)		0.08 (0.45)
<i>Size</i>	-0.08 (-1.34)	-0.08 (-1.43)	-0.50*** (-3.54)	-0.50*** (-3.50)	-0.24*** (-3.10)	-0.25*** (-3.28)	-0.15*** (-2.73)	-0.15*** (-2.78)	-0.11 (-1.57)	-0.11* (-1.72)	-0.22*** (-4.27)	-0.23*** (-4.43)
<i>BM</i>	0.40*** (3.06)	0.43*** (3.27)	0.23 (1.26)	0.22 (1.18)	0.34** (2.14)	0.37** (2.33)	0.39** (2.44)	0.39** (2.41)	0.37* (1.94)	0.39** (2.04)	0.40*** (3.10)	0.42*** (3.22)
<i>Past Month Returns</i>	-0.03*** (-2.87)	-0.03*** (-2.77)	-0.06*** (-5.62)	-0.06*** (-5.61)	-0.05*** (-4.45)	-0.05*** (-4.38)	-0.06*** (-4.46)	-0.06*** (-4.43)	-0.03*** (-2.84)	-0.03*** (-2.81)	-0.06*** (-6.60)	-0.06*** (-6.57)
<i>Past Year Returns</i>	0.01*** (4.98)	0.01*** (5.06)	0.00** (2.21)	0.00** (2.30)	0.01*** (4.69)	0.01*** (4.81)	0.01 (1.39)	0.01 (1.41)	0.01*** (2.63)	0.01*** (2.65)	0.01*** (3.35)	0.01*** (3.42)
Fixed Effect	Month	Month	Month	Month	Month	Month	Month	Month	Month	Month	Month	Month
Number of observations	26,543	26,543	21,927	21,927	26,345	26,345	22,115	22,115	17,594	17,594	36,605	36,605

Table A12: Predicting News Events with Opportunistic Buys and Sells Separately

This table reports panel regressions of information events on the number of routine and opportunistic buys and sells in a company in the prior month, from 1989-2007. The dependent variables in the regressions are: in Columns 1-3, a proxy for firm information environment in month $t+1$ using the number of news, annual and quarterly earnings forecast revisions, recommendation changes, SEO and M&A activities (All Firm Info), in Columns 4-6, solely the number of news in month $t+1$ (News). The main independent variables of interest are the Number of Opportunistic Buys, the Number of Opportunistic Sells, the Number of Routine Buys, and the Number of Routine Sells, each defined as the logarithm of one plus the number of trades of a given type, made in the prior month (month t). Past Month News is equal to the number of information events (for each respective specification of information events) observed for the given firm in the prior month (month t), while Past 6 Month News is defined equivalently for information events of the firm in the 6 months prior to last month. The other independent variables are defined in Table II. Month fixed effects (Month) are included where indicated. All standard errors are adjusted for clustering at the firm level, and t-stats using these clustered standard errors are included in parentheses below the coefficient estimates; 1%, 5%, and 10% statistical significance are indicated with ***, **, and *, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
Type of Information:	<i>All Firm Info</i>	<i>All Firm Info</i>	<i>All Firm Info</i>	<i>News</i>	<i>News</i>	<i>News</i>
<i>Number of Opportunistic Sells</i>	0.26*** (8.18)	0.03** (2.54)	0.03** (2.37)	0.26*** (7.09)	0.03*** (2.85)	0.04*** (3.31)
<i>Number of Opportunistic Buys</i>	-0.08** (-2.49)	0.02 (1.58)	0.03** (2.40)	0.00 (0.13)	0.02* (1.69)	0.02** (2.01)
<i>Number of Routine Sells</i>	0.31*** (6.63)	0.03* (1.72)	0.02 (1.58)	0.26*** (4.49)	0.02 (1.41)	0.02 (1.33)
<i>Number of Routine Buys</i>	-0.11*** (-3.17)	-0.04** (-2.29)	0.00 (0.35)	-0.05 (-1.50)	-0.01 (-1.10)	0.00 (0.05)
<i>Size</i>		0.09*** (15.87)	0.03*** (7.86)		0.02*** (4.87)	0.02*** (4.66)
<i>BM</i>		-0.03** (-2.42)	-0.01 (-1.37)		-0.03*** (-2.93)	-0.01 (-1.01)
<i>Past Month Returns</i>		-0.00** (-2.02)	0.00*** (2.77)		-0.00 (-0.97)	0.00*** (3.76)
<i>Past Year Returns</i>		0.00 (0.44)	0.00 (1.12)		0.00 (1.30)	0.00 (1.09)
<i>Past Month News</i>		0.58*** (39.76)	0.22*** (19.36)		0.72*** (54.63)	0.28*** (18.86)
<i>Past 6 Month News</i>			0.46*** (19.36)			0.39*** (65.62)
Fixed Effect		Month	Month		Month	Month
Number of observations	22,071	20,198	20,198	22,071	20,198	20,198

Exhibit A1: Hypothetical Example, and Notes on Opportunistic Insider Classification Scheme

Assume you had insider Bob trade in March of 1987, 1988, and 1989 (and no other trades in those years). And here are his trades for 1990 and 1991:

1. January 1990
2. March 1990
3. Dec 1990
4. Jan 1991

In the main tables of our paper (i.e., everything except Table III), the “routine” trades are trades made by an insider who has had three consecutive calendar years with trades in the same month in the past. In the example above, insider Bob is routine. We would classify all his trades (1 through 4) as those made by a routine insider, and they would enter our tests as routine. In Table III, in our trade-level analysis, we took a slightly different approach. We wanted to differentiate trades that are made in the same month as the month that established an insider as routine from trades that the insider made in other (non-routine) months. In the example above, Bob is routine because he traded in March in three consecutive years. In Table III, all his subsequent March trades (i.e., trade 2) would be classified as routine. However, trades that Bob makes in months other than March (i.e., trades 1, 3, and 4) would be opportunistic in the context of Table III.

Some other notes about our classification scheme are as follows. In the results we report in the main tables (e.g., Table II), once a trader becomes routine, he is classified as routine for all of his subsequent trades, regardless of what trading behavior (or lack of trading behavior) takes place after his initial three-year classification period. We have experimented with different permutations here, e.g., only using the most recent three-year lagged trading behavior to define routine traders each year, and the results are very similar to those reported here (see Appendix Table A1). Finally, in all of our main results we do check the past three-years of trading for all opportunistic traders each year, so they can “become” a routine trader at any point. In which case, the opportunistic trader would become a routine trader if he traded in the same calendar month in the past three years, and then stay as a routine trader from that point onward as mentioned above.