# Uninformative Feedback and Risk Taking: Evidence from Retail Forex Trading 

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## Internet Appendix Table A1. Main Tests with Three-Day Frequency

This table reports results from regressions in which the dependent variable measures the change in average trade size or change in trade size variability for trader $i$ in the two-week period $t$ relative to the three-day period $t-1$. Avg Trade $\operatorname{Ret}(t-1)(\%)$ is a continuous variable equal to the return of trader $i$ in the two-week period $t-1$, represented as percentage points. I(Avg Trade $\operatorname{Ret}(t-1)>0)$ is an indicator variable taking a value of 1 when past value-weighted average returns are positive. The change in average trade size, the change in trade size variability, and the change in the number of trades, are represented as fractions. The regressions in Panel B include a third-degree polynomial of returns for the positive and for the negative domains, the coefficients of which are not reported. All regressions include week fixed effects. Trader fixed effects are included where noted. All regressions are OLS regressions. Standard errors are clustered at the trader and week level. $t$-statistics are in parentheses. ${ }^{*}, * *, * * *$ denote significance at the $10 \%, 5 \%$, and $1 \%$ level, respectively.

## Panel A: The Slopes of the Trading Patterns with Respect to Past Returns, around Zero Past Returns (Three-Day Frequency)

| Dependent variable: | Change in Avg <br> Trade Size ( t ) |  | Change in Trade Size Variability (t) |  | Change in Number of Trades ( t ) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (1) | (2) | (3) | (4) | (5) | (6) |
| Avg Trade Ret (t-1) (\%) | -0.22*** | -0.32*** | -0.10* | -0.29*** | -1.85*** | -3.24*** |
|  | (-5.06) | (-6.78) | (-1.63) | (-4.47) | (-13.91) | (-21.08) |
| $\times \mathrm{I}($ Avg Trade Ret $(\mathrm{t}-1)>0)$ | 0.51*** | 0.70*** | 0.35*** | 0.71*** | 3.64*** | 6.47*** |
|  | (7.98) | (9.64) | (3.28) | (6.32) | (12.84) | (19.69) |
| $\mathrm{I}($ Avg Trade Ret $(\mathrm{t}-1)>0)$ | 0.07*** | 0.09*** | 0.16*** | 0.20*** | 0.46*** | 0.64*** |
|  | (6.65) | (7.80) | (14.17) | (16.17) | (18.41) | (23.50) |
| Calendar FE | Yes | Yes | Yes | Yes | Yes | Yes |
| Week FE <br> Trader FE | Yes | Yes | Yes | Yes | Yes | Yes |
|  | No | Yes | No | Yes | No | Yes |
| Obs | 78,161 | 78,161 | 56,407 | 56,407 | 78,161 | 78,161 |
| $\mathrm{R}^{2}$ | 0.011 | 0.013 | 0.050 | 0.052 | 0.080 | 0.097 |

Panel B: The Discontinuity in the Trading Patterns with Respect to Past Returns, around Zero Past Returns (Three-Day Frequency)

| Dependent variable: | Change in Avg Trade Size (t) |  | Change in Trade Size Variability (t) |  | Change in Number of Trades ( t ) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (1) | (2) | (3) | (4) | (5) | (6) |
| $\mathrm{I}($ Avg Trade Ret $(\mathrm{t}-1)>0)$ | $\begin{gathered} \hline 0.09 * * * \\ (5.71) \end{gathered}$ | $\begin{gathered} \hline 0.10^{* * *} \\ (6.94) \end{gathered}$ | $\begin{aligned} & \hline 0.16^{* * *} \\ & (11.40) \end{aligned}$ | $\begin{aligned} & \hline 0.18^{* * *} \\ & (12.35) \end{aligned}$ | $\begin{aligned} & \hline 0.67 * * * \\ & (20.25) \end{aligned}$ | $\begin{aligned} & \hline 0.09 * * * \\ & (22.89) \end{aligned}$ |
| 3rd degree polynomial | Yes | Yes | Yes | Yes | Yes | Yes |
| $\times \mathrm{I}($ Avg Trade Ret $(\mathrm{t}-1)>0)$ | Yes | Yes | Yes | Yes | Yes | Yes |
| Calendar FE | Yes | Yes | Yes | Yes | Yes | Yes |
| Week FE | Yes | Yes | Yes | Yes | Yes | Yes |
| Trader FE | No | Yes | No | Yes | No | Yes |
| Obs | 78,161 | 78,161 | 56,407 | 56,407 | 78,161 | 78,161 |
| $\mathrm{R}^{2}$ | 0.011 | 0.013 | 0.050 | 0.052 | 0.083 | 0.103 |

## Internet Appendix Table A2. Main Tests with Two-Week Frequency

This table reports results from regressions in which the dependent variable measures change in average trade size or change in trade size variability for trader $i$ in the two-week period $t$ relative to the two-week period $t-1$. Avg Trade $\operatorname{Ret}(t-1)(\%)$ is a continuous variable equal to the return of trader $i$ in the two-week period $t-1$, represented as percentage points. I(Avg Trade $\operatorname{Ret}(t-1)>0)$ is an indicator variable taking a value of 1 when past value-weighted average returns are positive. The change in average trade size, the change in trade size variability, and the change in the number of trades, are represented as fractions. The regressions in Panel B include a third-degree polynomial of returns for the positive and for the negative domains, the coefficients of which are not reported. All regressions include week fixed effects. Trader fixed effects are included where noted. All regressions are OLS regressions. Standard errors are clustered at the trader and week level. $t$-statistics are in parentheses. ${ }^{*}, * *, * * *$ denote significance at the $10 \%, 5 \%$, and $1 \%$ level, respectively.

## Panel A: The Slopes of the Trading Patterns with Respect to Past Returns, around Zero Past Returns (Two-Week Frequency)

| Dependent variable: | Change in Avg <br> Trade Size (t) |  | Change in Trade Size Variability ( t ) |  | Change in Number of Trades ( t ) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (1) | (2) | (3) | (4) | (5) | (6) |
| Avg Trade Ret (t-1) (\%) | -0.27* | -0.54*** | -0.01 | -0.16 | -3.96*** | -6.17*** |
|  | (-1.95) | (-5.06) | (-0.11) | (-1.50) | (-12.52) | (-14.82) |
| $\times \mathrm{I}($ Avg Trade Ret $(\mathrm{t}-1)>0)$ | 0.77*** | 1.29*** | 0.54*** | 0.87*** | 7.46*** | 12.37*** |
|  | (2.74) | (5.08) | (3.52) | (5.18) | (13.81) | (15.43) |
| $\mathrm{I}($ Avg Trade Ret $(\mathrm{t}-1)>0$ ) | 0.14*** | 0.19*** | 0.17*** | 0.22*** | 0.42*** | 0.73*** |
|  | (6.29) | (9.11) | (7.55) | (8.37) | (9.96) | (13.45) |
| Calendar FE | Yes | Yes | Yes | Yes | Yes | Yes |
| Week FE | Yes | Yes | Yes | Yes | Yes | Yes |
| Trader FE | No | Yes | No | Yes | No | Yes |
| Obs | 24,815 | 24,815 | 20,699 | 20,699 | 24,815 | 24,815 |
| $\mathrm{R}^{2}$ | 0.011 | 0.034 | 0.022 | 0.025 | 0.038 | 0.064 |

Panel B: The Discontinuity in the Trading Patterns with Respect to Past Returns, around Zero Past Returns (Two-Week Frequency)

| Dependent variable: | Change in Avg <br> Trade Size ( t ) |  | Change in Trade Size Variability ( t ) |  | Change in Number of Trades ( t ) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (1) | (2) | (3) | (4) | (5) | (6) |
| $\mathrm{I}($ Avg Trade Ret $(\mathrm{t}-1)>0$ ) | $\begin{gathered} \hline 0.10^{* * *} \\ (3.59) \end{gathered}$ | $\begin{gathered} \hline 0.15 * * * \\ (5.84) \end{gathered}$ | $\begin{gathered} \hline 0.16^{* * *} \\ (7.37) \end{gathered}$ | $\begin{gathered} \hline 0.18^{* * *} \\ (6.98) \end{gathered}$ | $\begin{gathered} \hline 0.55 * * * \\ (9.33) \end{gathered}$ | $\begin{gathered} \hline 0.85 * * * \\ (12.51) \end{gathered}$ |
| 3rd degree polynomial | Yes | Yes | Yes | Yes | Yes | Yes |
| $\times \mathrm{I}($ Avg Trade Ret ( $\mathrm{t}-1)>0$ ) | Yes | Yes | Yes | Yes | Yes | Yes |
| Calendar FE | Yes | Yes | Yes | Yes | Yes | Yes |
| Week FE | Yes | Yes | Yes | Yes | Yes | Yes |
| Trader FE | No | Yes | No | Yes | No | Yes |
| Obs | 24,815 | 24,815 | 20,699 | 20,699 | 24,815 | 24,815 |
| $\mathrm{R}^{2}$ | 0.013 | 0.036 | 0.023 | 0.025 | 0.043 | 0.076 |

## Internet Appendix Table A3. Main Tests without Accounting for Trader Exit

This table reports results from regressions in which the dependent variable measures change in average trade size or change in trade size variability for trader $i$ from one week to another. In these tests, trader-weeks who exit the sample are simply dropped. Avg $\operatorname{Trade} \operatorname{Ret}(t-1)(\%)$ is a continuous variable equal to the return of trader $i$ in the two-week period $t-1$, represented as percentage points. $I(\operatorname{Avg} \operatorname{Trade} \operatorname{Ret}(t-1)>0)$ is an indicator variable taking a value of 1 when past value-weighted average returns are positive. The change in average trade size, the change in trade size variability, and the change in the number of trades, are represented as fractions. The regressions in Panel B include a third-degree polynomial of returns for the positive and for the negative domains, the coefficients of which are not reported. All regressions include week fixed effects. Trader fixed effects are included where noted. All regressions are OLS regressions. Standard errors are clustered at the trader and week level. $t$-statistics are in parentheses. ${ }^{*},{ }^{* *}$, $* * *$ denote significance at the $10 \%, 5 \%$, and $1 \%$ level, respectively.

## Panel A: The Slopes of the Trading Patterns around Zero Past Returns (Exiting TraderWeeks Are Dropped)

| Dependent variable: | Change in Avg <br> Trade Size (t) |  | Change in Median Trade Size (t) |  | Change in Number of Trades (t) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (1) | (2) | (3) | (4) | (5) | (6) |
| Avg Trade Ret (t-1) (\%) | -0.37** | -0.55*** | -1.38*** | $-1.82 * * *$ | -3.33*** | -4.98*** |
|  | (-5.96) | (-8.32) | (-3.78) | (-4.38) | (-14.18) | (-17.28) |
| $\times \mathrm{I}($ Avg Trade Ret $(\mathrm{t}-1)>0)$ | 0.86*** | 1.26*** | 1.74*** | 2.75*** | 6.02*** | 9.63*** |
|  | (7.09) | (9.30) | (3.78) | (5.04) | (13.73) | (18.04) |
| $\mathrm{I}($ Avg Trade Ret $(\mathrm{t}-1)>0)$ | 0.09*** | 0.12*** | 0.00 | 0.06* | 0.36*** | 0.60*** |
|  | (4.74) | (8.10) | (-0.01) | (1.56) | (14.44) | (18.72) |
| Calendar FE | Yes | Yes | Yes | Yes | Yes | Yes |
| Week FE <br> Trader FE | Yes | Yes | Yes | Yes | Yes | Yes |
|  | No | Yes | No | Yes | No | Yes |
| Obs | 41,480 | 41,480 | 41,480 | 41,480 | 41,480 | 41,480 |
| $\mathrm{R}^{2}$ | 0.011 | 0.013 | 0.005 | 0.005 | 0.039 | 0.063 |

## Panel B: The Discontinuity in the Trading Patterns around Zero Past Returns (Exiting Trader-Weeks Are Dropped)

| Dependent variable: | Change in Avg <br> Trade Size (t) |  | Change in Median Trade Size (t) |  | Change in Number of Trades ( t ) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (1) | (2) | (3) | (4) | (5) | (6) |
| $\mathrm{I}($ Avg Trade $\operatorname{Ret}(\mathrm{t}-1)>0)$ | $\begin{gathered} \hline 0.09 * * * \\ (3.87) \end{gathered}$ | $\begin{gathered} \hline 0.13 * * * \\ (6.69) \end{gathered}$ | $\begin{aligned} & 0.10^{*} \\ & (2.06) \end{aligned}$ | $\begin{gathered} \hline 0.17 * * * \\ (2.47) \end{gathered}$ | $\begin{gathered} \hline 0.51 * * * \\ (8.78) \end{gathered}$ | $\begin{gathered} \hline 0.72 * * * \\ (11.35) \end{gathered}$ |
| 3rd degree polynomial | Yes | Yes | Yes | Yes | Yes | Yes |
| $\times \mathrm{I}($ Avg Trade Ret $(\mathrm{t}-1)>0)$ | Yes | Yes | Yes | Yes | Yes | Yes |
| Calendar FE | Yes | Yes | Yes | Yes | Yes | Yes |
| Week FE | Yes | Yes | Yes | Yes | Yes | Yes |
| Trader FE | No | Yes | No | Yes | No | Yes |
| Obs | 41,480 | 41,480 | 41,480 | 41,480 | 41,480 | 41,480 |
| $\mathrm{R}^{2}$ | 0.011 | 0.015 | 0.005 | 0.005 | 0.041 | 0.070 |

## Internet Appendix Table A4. Winsorizing the Change in Trade size variability

This table reports results from regressions in which the dependent variable measures change in trade size variability for trader $i$ in week $t$ relative to week $t-1$. Avg $\operatorname{Trade} \operatorname{Ret}(t-1)(\%)$ is a continuous variable equal to the return of trader $i$ in week $t-1$, represented as percentage points. I (Avg $\operatorname{Trade} \operatorname{Ret}(t-1)>0)$ is an indicator variable taking a value of 1 when returns in week $t-1$ are positive. The change in trade size variability is represented as a fraction. The dependent variable (change in trade size variability) is winsorized at 5 in Columns (1) to (4), and at 10 in Columns (5) to (8). The regressions in Panel B include a third-degree polynomial of returns for the positive and for the negative domains, the coefficients of which are not reported. All regressions include week fixed effects. Trader fixed effects are included where noted. All regressions are OLS regressions. Standard errors are clustered at the trader and week level. $t$-statistics are in parentheses. ${ }^{*},{ }^{* *},{ }^{* * *}$ denote significance at the $10 \%, 5 \%$, and $1 \%$ level, respectively.

Panel A: The Slopes of the Change in Average Trade Size and the Change in Trade size variability with Respect to Past Returns, around Zero Past Returns

| Dependent variable: <br> Weeks: | Change in Trade Size Variability (t) (winsorized at 5) |  |  |  | Change in Trade Size Variability (t) (winsorized at 10) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\leq 5$ | $\leq 10$ | $\leq 15$ | All | $\leq 5$ | $\leq 10$ | $\leq 15$ | All |
|  | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| Avg Trade Ret (t-1) (\%) | $\begin{aligned} & \hline-1.23^{*} \\ & (-1.92) \end{aligned}$ | $\begin{gathered} \hline-0.91 * * * \\ (-2.72) \end{gathered}$ | $\begin{gathered} \hline-0.71^{* * *} \\ (-2.72) \end{gathered}$ | $\begin{gathered} -0.64 * * * \\ (-3.45) \end{gathered}$ | $\begin{gathered} \hline-2.69 * * \\ (-2.37) \end{gathered}$ | $\begin{gathered} \hline-2.26 * * * \\ (-4.09) \end{gathered}$ | $\begin{gathered} \hline-1.71^{* * *} \\ (-3.67) \end{gathered}$ | $\begin{gathered} \hline-1.53 * * * \\ (-4.73) \end{gathered}$ |
| $\times \mathrm{I}($ Avg Trade Ret $(\mathrm{t}-1)>0)$ | $\begin{gathered} 4.29 * * * \\ (4.41) \end{gathered}$ | $\begin{gathered} 3.44^{* * *} \\ (4.65) \end{gathered}$ | $\begin{gathered} 2.88^{* * *} \\ (5.43) \end{gathered}$ | $\begin{gathered} 2.19 * * * \\ (7.20) \end{gathered}$ | $\begin{gathered} 8.99 * * * \\ (5.24) \end{gathered}$ | $\begin{gathered} 7.15 * * * \\ (5.95) \end{gathered}$ | $\begin{gathered} 5.81 * * * \\ (6.04) \end{gathered}$ | $\begin{gathered} 4.68 * * * \\ (8.42) \end{gathered}$ |
| $\mathrm{I}($ Avg Trade Ret $(\mathrm{t}-1)>0$ ) | $\begin{gathered} 0.42 * * * \\ (7.83) \end{gathered}$ | $\begin{gathered} 0.38^{* * *} \\ (7.34) \end{gathered}$ | $\begin{gathered} 0.33 * * * \\ (9.20) \end{gathered}$ | $\begin{aligned} & 0.32 * * * \\ & (12.36) \end{aligned}$ | $\begin{gathered} 0.64^{* * *} \\ (5.68) \end{gathered}$ | $\begin{gathered} 0.60^{* * *} \\ (5.97) \end{gathered}$ | $\begin{gathered} 0.51 * * * \\ (8.28) \end{gathered}$ | $\begin{aligned} & 0.48 * * * \\ & (11.73) \end{aligned}$ |
| Calendar FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Week FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Trader FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Obs | 4,247 | 9,378 | 14,396 | 27,361 | 4,247 | 9,378 | 14,396 | 27,631 |
| $\mathrm{R}^{2}$ | 0.055 | 0.036 | 0.028 | 0.023 | 0.054 | 0.034 | 0.0263 | 0.0219 |

## Panel B: The Discontinuity in the Change in Average Trade Size and the Change in Trade size variability with Respect to Past Returns, around Zero Past Returns

| Dependent variable: Weeks: | Change in Trade Size Variability ( t ) (winsorized at 5) |  |  |  | Change in Trade Size Variability ( t ) (winsorized at 10) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\leq 5$ | $\leq 10$ | $\leq 15$ | All | $\leq 5$ | $\leq 10$ | $\leq 15$ | All |
|  | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| $\mathrm{I}($ Avg Trade Ret $(\mathrm{t}-1)>0$ ) | $\begin{gathered} 0.39 * * * \\ (3.83) \end{gathered}$ | $\begin{gathered} 0.38^{* * *} \\ (3.92) \end{gathered}$ | $\begin{gathered} 0.31 * * * \\ (4.98) \end{gathered}$ | $\begin{gathered} 0.27 * * * \\ (6.86) \end{gathered}$ | $\begin{gathered} 0.65 * * * \\ (3.42) \end{gathered}$ | $\begin{gathered} 0.63 * * * \\ (3.50) \end{gathered}$ | $\begin{gathered} 0.50^{* * *} \\ (4.35) \end{gathered}$ | $\begin{gathered} \hline 0.42 * * * \\ (5.99) \end{gathered}$ |
| 3rd degree polynomial | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| $\times \mathrm{I}($ Avg Trade Ret ( $\mathrm{t}-1)>0$ ) | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Calendar FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Week FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Trader FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Obs | 4,247 | 9,378 | 14,396 | 27,631 | 4,247 | 9,378 | 14,396 | 27,631 |
| $\mathrm{R}^{2}$ | 0.056 | 0.037 | 0.028 | 0.024 | 0.055 | 0.035 | 0.0265 | 0.0222 |

## Internet Appendix Table A5. Measuring the Discontinuity Using Higher Degree Polynomials

This table reports results from regressions in which the dependent variable measures the change in average trade size or the change in trade size variability for trader $i$ in week $t$ relative to week $t-1$, or the average trade return in week $t$. Avg Trade Ret ( $t-1$ ) (\%) is a continuous variable equal to the return of trader $i$ in week $t-1$, represented as percentage points. $I($ Avg $\operatorname{Trade} \operatorname{Ret}(t-1)>0)$ is an indicator variable taking a value of 1 when returns in week $t-1$ are greater than 0 . The change in average trade size, the change in trade size variability, and the change in the number of trades, are represented as fractions. The regressions include a fourth- or fifth-degree polynomial of returns for the positive and for the negative domains, the coefficients of which are not reported. All regressions include week fixed effects and trader fixed effects. All regressions are OLS regressions. Standard errors are clustered at the trader and week level. $t$-statistics are in parentheses. ${ }^{*},{ }^{* *}, * * *$ denote significance at the $10 \%, 5 \%$, and $1 \%$ level, respectively.

| Dependent variable: <br> Polynomial degree: | Change in Avg Trade Size ( t ) |  | Change in Trade Size Variability (t) |  | Change in Number of Trades ( t ) |  | Average Trade Return (t) (\%) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 4th | 5th | 4th | 5th | 4th | 5th | 4th | 5th |
|  | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| $\mathrm{I}($ Avg Trade Ret $(\mathrm{t}-1)>0)$ | $\begin{gathered} \hline 0.14^{* * *} \\ (6.47) \end{gathered}$ | $\begin{gathered} \hline 0.15^{* * *} \\ (5.96) \end{gathered}$ | $\begin{gathered} \hline 0.15 * * * \\ (7.16) \end{gathered}$ | $\begin{gathered} \hline 0.13 * * * \\ (6.48) \end{gathered}$ | $\begin{aligned} & 0.70^{* * *} \\ & (-11.35) \end{aligned}$ | $\begin{aligned} & \hline 0.68 * * * \\ & (-11.19) \end{aligned}$ | $\begin{gathered} \hline-0.01^{* *} \\ (-2.05) \end{gathered}$ | $\begin{gathered} \hline-0.01^{* *} \\ (-2.27) \end{gathered}$ |
| Xth degree polynomial | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| $\times \mathrm{I}($ Avg Trade Ret $(\mathrm{t}-1)>0)$ | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Calendar FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Week FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Trader FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Obs | 42,880 | 42,880 | 34,785 | 34,785 | 42,880 | 42,880 | 41,480 | 41,480 |
| $\mathrm{R}^{2}$ | 0.015 | 0.016 | 0.026 | 0.026 | 0.063 | 0.064 | 0.015 | 0.015 |

## Internet Appendix Table A6. Estimation Using WLS

This table reports results from regressions in which the dependent variable measures the change in average trade size, the change in trade size variability for trader $i$ in week $t$ relative to week $t-1$, or the average trade return in week $t$. Avg $\operatorname{Trade} \operatorname{Ret}(t-1)(\%)$ is a continuous variable equal to the return of trader $i$ in week $t-1$, represented as percentage points. $I(A v g \operatorname{Trade} \operatorname{Ret}(t-1)>0)$ is an indicator variable taking a value of 1 when returns in week $t-1$ are greater than 0 . The change in average trade size, the change in trade size variability, and the change in the number of trades, are represented as fractions. The regressions in Panel B include a third-degree polynomial of returns for the positive and for the negative domains, the coefficients of which are not reported. All regressions include week fixed effects, and trader fixed effects are included where noted. All regressions are weighted least squares (WLS) regressions. Standard errors are clustered at the trader and week level. $t$-statistics are in parentheses. ${ }^{*},{ }^{* *}, * * *$ denote significance at the $10 \%, 5 \%$, and $1 \%$ level, respectively.

Panel A: The Slopes of the Trading Patterns with Respect to Past Returns, around Zero Past Returns

| Dependent variable: | Change in Avg <br> Trade Size (t) |  | Change in Trade Size Variability (t) |  | Change in Number of Trades ( t ) |  | Average Trade <br> Return (t) (\%) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| Avg Trade Ret (t-1) (\%) | $\begin{gathered} -0.95 * * * \\ (-5.07) \end{gathered}$ | $\begin{gathered} -0.62 * * * \\ (-4.03) \end{gathered}$ | $\begin{aligned} & -0.29^{*} \\ & (-1.76) \end{aligned}$ | $\begin{gathered} -0.12 \\ (-0.81) \end{gathered}$ | $\begin{gathered} -6.43 * * * \\ (-14.22) \end{gathered}$ | $\begin{gathered} \hline-9.32 * * * \\ (18.48) \end{gathered}$ | $\begin{gathered} -0.09 * * * \\ (-4.66) \end{gathered}$ | $\begin{gathered} 0.03 * * \\ (2.29) \end{gathered}$ |
| $\times \mathrm{I}($ Avg Trade Ret $(\mathrm{t}-1)>0)$ | $\begin{gathered} 1.76^{* * *} \\ (5.22) \end{gathered}$ | $\begin{gathered} 1.07 * * * \\ (4.39) \end{gathered}$ | $\begin{gathered} 0.99 * * * \\ (3.28) \end{gathered}$ | $\begin{gathered} 0.46^{* *} \\ (2.02) \end{gathered}$ | $\begin{aligned} & 0.32^{* * *} \\ & (17.59) \end{aligned}$ | $\begin{gathered} 19.00^{* * *} \\ (21.87) \end{gathered}$ | $\begin{gathered} -0.03 \\ (-0.66) \end{gathered}$ | $\begin{gathered} -0.11^{* * *} \\ (-2.92) \end{gathered}$ |
| $\mathrm{I}($ Avg Trade Ret $(\mathrm{t}-1)>0)$ | $\begin{aligned} & 0.19^{* * *} \\ & (10.66) \end{aligned}$ | $\begin{gathered} 0.15 * * * \\ (6.92) \end{gathered}$ | $\begin{aligned} & 0.23 * * * \\ & (11.19) \end{aligned}$ | $\begin{gathered} 0.19^{* * *} \\ (9.53) \end{gathered}$ | $\begin{gathered} 0.32 * * * \\ (7.12) \end{gathered}$ | $\begin{aligned} & 0.58^{* * *} \\ & (12.30) \end{aligned}$ | $\begin{gathered} 0.00 \\ (1.15) \end{gathered}$ | $\begin{gathered} 0.00^{* *} \\ (2.27) \end{gathered}$ |
| Calendar FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Week FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Trader FE | No | Yes | No | Yes | No | Yes | No | Yes |
| Obs | 42,880 | 42,880 | 34,785 | 34,785 | 42,880 | 42,880 | 41,480 | 41,480 |
| $\mathrm{R}^{2}$ | 0.027 | 0.042 | 0.034 | 0.078 | 0.104 | 0.084 | 0.023 | 0.045 |

Panel B: The Discontinuity in the Trading Patterns with Respect to Past Returns, around Zero Past Returns

| Dependent variable: | Change in Avg Trade Size (t) |  | Change in Trade Size Variability (t) |  | Change in Number of Trades ( t ) |  | Average Trade Return (t) (\%) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| $\mathrm{I}($ Avg Trade Ret $(\mathrm{t}-1)>0$ ) | $\begin{gathered} \hline 0.18 * * * \\ (7.62) \end{gathered}$ | $\begin{gathered} \hline 0.15 * * * \\ (4.45) \end{gathered}$ | $\begin{gathered} \hline 0.17 * * * \\ (5.87) \end{gathered}$ | $\begin{gathered} \hline 0.16^{* * *} \\ (5.57) \end{gathered}$ | $\begin{gathered} \hline 0.41 * * * \\ (6.84) \end{gathered}$ | $\begin{gathered} 0.61 * * * \\ (9.84) \end{gathered}$ | $\begin{gathered} -0.0028^{* * *} \\ (-1.28) \end{gathered}$ | $\begin{gathered} \hline-0.0040 * * * \\ (-1.81) \end{gathered}$ |
| 3rd degree polynomial $\times \mathrm{I}(\operatorname{Avg} \operatorname{Trade} \operatorname{Ret}(\mathrm{t}-1)>0)$ | Yes Yes | Yes Yes | Yes Yes | Yes Yes | Yes Yes | Yes Yes | Yes Yes | Yes Yes |
| Calendar FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Week FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Trader FE | No | Yes | No | Yes | No | Yes | No | Yes |
| Obs | 42,880 | 42,880 | 34,785 | 34,785 | 42,880 | 42,880 | 41,480 | 41,480 |
| $\mathrm{R}^{2}$ | 0.030 | 0.044 | 0.035 | 0.078 | 0.106 | 0.092 | 0.024 | 0.047 |

## Internet Appendix Table A7. Falsification Tests: Testing Slope and Discontinuity at Other Values

This table reports results from regressions in which the dependent variable measures the change in average trade size or the change in trade size variability for trader $i$ in the week $t$ relative to week $t-1$. Avg $\operatorname{Trade} \operatorname{Ret}(t-1)(\%)$ is a continuous variable equal to the return of trader $i$ in week $t-1$, represented as percentage points. $I(\operatorname{Avg} \operatorname{Trade} \operatorname{Ret}(t-$ 1) $>x$ ) is an indicator variable taking a value of 1 when returns in week $t-1$ are greater than $0+/-$ the specified number of standard deviations. The change in average trade size, the change in trade size variability, and the change in the number of trades, are represented as fractions. The regressions in Panels D to F include a third-degree polynomial of returns for the positive and for the negative domains, the coefficients of which are not reported. All regressions include week fixed effects, and trader fixed effects are included where noted. All regressions are OLS regressions. Standard errors are clustered at the trader and week level. $t$-statistics are in parentheses. ${ }^{*},{ }^{* *},{ }^{* * *}$ denote significance at the $10 \%, 5 \%$, and $1 \%$ level, respectively.

## Panel A: Slopes of the Change in Average Trade Size around Non-Zero Returns

| Dependent variable: | Change in Avg Trade Size (t) |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | -2 std | -1.5 std | -1 std | -0.5 std | 0 std | +0.5 std | +1 std | +1.5 std | +2 std |
|  | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| Avg Trade Ret (t-1) (\%) | 0.08 | 0.06 | -0.01 | -0.10* | -0.31*** | -0.01 | 0.12*** | 0.15*** | 0.17*** |
|  | (0.38) | (0.44) | (-0.12) | (-1.63) | (-5.18) | (-0.18) | (2.69) | (3.75) | (4.31) |
| $\times \mathrm{I}($ Avg $\operatorname{Trade} \operatorname{Ret}(\mathrm{t}-1)>\mathrm{x})$ | 0.39* | 0.51*** | 0.71*** | 0.95*** | 0.84*** | 0.26* | 0.20 | 0.39 | 0.53 |
|  | (1.86) | (3.73) | (6.55) | (8.22) | (6.55) | (1.86) | (1.17) | (1.26) | (1.23) |
| $\mathrm{I}($ Avg Trade $\operatorname{Ret}(\mathrm{t}-1)>\mathrm{x})$ | -0.04 | -0.05 | -0.03 | -0.01 | 0.13*** | 0.13*** | 0.06 | -0.03 | -0.11 |
|  | (-0.40) | (-0.77) | (-0.75) | (-0.30) | (9.10) | (4.88) | (1.13) | (-0.27) | $(-0.61)$ |
| Calendar FE <br> Week FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
|  | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Trader FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Obs | 42,880 | 42,880 | 42,880 | 42,880 | 42,880 | 42,880 | 42,880 | 42,880 | 42,880 |
| $\mathrm{R}^{2}$ | 0.010 | 0.010 | 0.011 | 0.012 | 0.014 | 0.010 | 0.009 | 0.009 | 0.009 |

Panel B: Slopes of the Change in Trade size variability around Non-Zero Returns

| Dependent variable: | Change in Trade Size Variability $(\mathrm{t})$ |  |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | -2 std | -1.5 std | -1 std | -0.5 std | 0 std | +0.5 std | +1 std | +1.5 std | +2 std |
|  | $(1)$ | $(2)$ | $(3)$ | $(4)$ | $(5)$ | $(6)$ | $(7)$ | $(8)$ | $(9)$ |
| Avg Trade Ret (t-1) (\%) | -0.01 | -0.23 | $-0.32^{*}$ | $-0.32^{* * *}$ | $-0.17^{*}$ | $0.41^{* * *}$ | $0.53^{* * *}$ | $0.55^{* * *}$ | $0.58^{* * *}$ |
|  | $(-0.04)$ | $(-0.91)$ | $(-1.82)$ | $(-2.58)$ | $(-1.81)$ | $(5.13)$ | $(6.85)$ | $(7.41)$ | $(8.26)$ |
| $\times$ I(Avg Trade Ret $(\mathrm{t}-1)>\mathrm{x})$ | $1.05^{* * *}$ | $1.36^{* * *}$ | $1.57^{* * *}$ | $1.58^{* * *}$ | $0.72^{* * *}$ | -0.10 | -0.25 | -0.63 | -0.32 |
|  | $(3.11)$ | $(4.99)$ | $(7.32)$ | $(8.95)$ | $(4.29)$ | $(-0.49)$ | $(-0.92)$ | $(-1.39)$ | $(-0.42)$ |
|  |  |  |  |  |  |  |  |  |  |
| I(Avg Trade Ret (t-1)>x) | 0.01 | 0.12 | $0.16^{* * *}$ | $0.16^{* * *}$ | $0.22^{* * *}$ | $0.15^{* * *}$ | $0.13^{*}$ | 0.28 | 0.13 |
|  | $(0.10)$ | $(1.33)$ | $(3.04)$ | $(6.43)$ | $(15.39)$ | $(4.20)$ | $(1.90)$ | $(1.61)$ | $(0.43)$ |
| Calendar FE |  |  |  |  |  |  |  |  |  |
| Week FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Trader FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Obs | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| $\mathrm{R}^{2}$ |  |  |  |  |  |  |  |  |  |

Internet Appendix Table A7. Falsification Tests: Testing Slope and Discontinuity at Other Values (Cont.)

Panel C: Slopes of the Change in the Number of Trades around Non-Zero Returns

| Dependent variable: | Change in Number of Trades (t) |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | -2 std | -1.5 std | -1 std | -0.5 std | 0 std | +0.5 std | +1 std | +1.5 std | +2 std |
|  | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| Avg Trade Ret (t-1) (\%) | -2.23*** | -2.35*** | -2.03*** | -2.82*** | -4.29*** | -2.60*** | $-1.82 * * *$ | -1.41*** | -1.13*** |
|  | (-3.62) | (-5.07) | (-6.09) | (-11.51) | (-16.41) | (-12.19) | (-9.56) | (-7.57) | (-6.32) |
| $\times \mathrm{I}($ Avg Trade Ret $(\mathrm{t}-1)>\mathrm{x})$ | 4.09*** | 4.88*** | 5.85*** | 8.11*** | 8.50*** | 5.61 *** | 4.66*** | 4.07*** | 5.01 *** |
|  | (6.41) | (9.92) | (14.73) | (18.33) | (16.85) | (11.17) | (7.23) | (4.88) | (2.75) |
| $\mathrm{I}(\mathrm{Avg}$ Trade $\operatorname{Ret}(\mathrm{t}-1)>\mathrm{x})$ | 0.00 | -0.01 | -0.31** | -0.15** | 0.61*** | 0.47*** | 0.33** | 0.29 | -0.32 |
|  | $(0.01)$ | $(-0.03)$ | $(-2.59)$ | $(-2.50)$ | $(19.89)$ | (7.49) | (2.02) | $(1.00)$ | $(-0.43)$ |
| Calendar FE <br> Week FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
|  | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Trader FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Obs | 42,880 | 42,880 | 42,880 | 42,880 | 42,880 | 42,880 | 42,880 | 42,880 | 42,880 |
| $\mathrm{R}^{2}$ | 0.027 | 0.031 | 0.042 | 0.050 | 0.056 | 0.039 | 0.030 | 0.026 | 0.022 |

Panel D: Discontinuity in the Change in Average Trade Size around Non-Zero Returns

| Dependent variable: | Change in Avg Trade Size (t) |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | -2 std | -1.5 std | -1 std | $-0.5 \mathrm{std}$ | 0 std | $+0.5 \mathrm{std}$ | +1 std | +1.5 std | +2 std |
|  | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| $\mathrm{I}($ Avg Trade $\operatorname{Ret}(\mathrm{t}-1)>\mathrm{x})$ | $\begin{aligned} & \hline-9.41^{*} \\ & (-5.04) \end{aligned}$ | $\begin{gathered} \hline-1.71^{* *} \\ (-2.46) \end{gathered}$ | $\begin{gathered} \hline-0.24 \\ (-0.97) \end{gathered}$ | $\begin{gathered} \hline-0.01 \\ (-0.19) \end{gathered}$ | $\begin{gathered} \hline 0.12 * * * \\ (6.48) \end{gathered}$ | $\begin{gathered} -0.06 \\ (-0.51) \end{gathered}$ | $\begin{aligned} & 1.02 * * \\ & (2.13) \end{aligned}$ | $\begin{gathered} -1.59 \\ (-0.43) \end{gathered}$ | $\begin{aligned} & \text { 25.97* } \\ & (1.84) \end{aligned}$ |
| 3rd degree polynomial | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| $\times \mathrm{I}($ Avg Trade Ret $(\mathrm{t}-1)>\mathrm{x})$ | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Calendar FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Week FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Trader FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Obs | 42,880 | 42,880 | 42,880 | 42,880 | 42,880 | 42,880 | 42,880 | 42,880 | 42,880 |
| $\mathrm{R}^{2}$ | 0.0126 | 0.0119 | 0.0117 | 0.013 | 0.015 | 0.0126 | 0.0128 | 0.0116 | 0.0109 |

Internet Appendix Table A7. Falsification Tests: Testing Slope and Discontinuity at Other

## Values (Cont.)

Panel E: Discontinuity in the Change in Trade size variability around Non-Zero Returns

| Dependent variable: | Change in Trade Size Variability (t) |  |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | -2 std | -1.5 std | -1 std | -0.5 std | 0 std | +0.5 std | +1 std | +1.5 std | +2 std |
|  | $(1)$ | $(2)$ | $(3)$ | $(4)$ | $(5)$ | $(6)$ | $(7)$ | $(8)$ | $(9)$ |
| I(Avg Trade Ret $(\mathrm{t}-1)>\mathrm{x})$ | 3.40 | $1.61^{*}$ | 0.53 | $0.16^{*}$ | $0.17^{* * *}$ | 0.19 | 0.46 | 3.39 | -8.93 |
|  | $(1.16)$ | $(1.65)$ | $(1.51)$ | $(1.91)$ | $(9.29)$ | $(0.99)$ | $(0.45)$ | $(1.02)$ | $(-0.36)$ |
|  |  |  |  |  |  |  |  |  |  |
| 3rd degree polynomial | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| $\quad \times \mathrm{I}($ Avg Trade Ret $(\mathrm{t}-1)>\mathrm{x})$ | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Calendar FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Week FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Trader FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
|  |  |  |  |  |  |  |  |  |  |
| Obs | 34,785 | 34,785 | 34,785 | 34,785 | 34,785 | 34,785 | 34,785 | 34,785 | 34,785 |
| $\mathrm{R}^{2}$ | 0.022 | 0.022 | 0.022 | 0.023 | 0.025 | 0.023 | 0.022 | 0.021 | 0.020 |

Panel F: Discontinuity in the Change in the Number of Trades around Non-Zero Returns

| Dependent variable: | Change in Number of Trades $(\mathrm{t})$ |  |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | -2 std | -1.5 std | -1 std | -0.5 std | 0 std | +0.5 std | +1 std | +1.5 std | +2 std |
|  | $(1)$ | $(2)$ | $(3)$ | $(4)$ | $(5)$ | $(6)$ | $(7)$ | $(8)$ | $(9)$ |
| I(Avg Trade Ret $(\mathrm{t}-1)>\mathrm{x})$ | $-25.09 * * *$ | $-5.82 * * *$ | $-2.32 * * *$ | 0.20 | $0.69^{* * *}$ | 0.15 | 0.32 | 13.46 | 9.38 |
|  | $(-5.60)$ | $(-3.48)$ | $(-2.83)$ | $(1.06)$ | $(10.91)$ | $(0.39)$ | $(0.18)$ | $(1.62)$ | $(0.16)$ |
|  |  |  |  |  |  |  |  |  |  |
| 3rd degree polynomial | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| $\quad \times \mathrm{I}($ Avg Trade Ret $(\mathrm{t}-1)>\mathrm{x})$ | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Calendar FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Week FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Trader FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
|  |  |  |  |  |  |  |  |  |  |
| Obs | 42,880 | 42,880 | 42,880 | 42,880 | 42,880 | 42,880 | 42,880 | 42,880 | 42,880 |
| $\mathrm{R}^{2}$ | 0.0469 | 0.0492 | 0.0493 | 0.053 | 0.062 | 0.0474 | 0.0471 | 0.0456 | 0.0431 |

## Internet Appendix Table A8. Regression Discontinuity Design without High-Order Polynomials

This table reports results from regressions in which the dependent variable measures the change in average trade size, the change in trade size variability for trader $i$ in week $t$ relative to week $t-1$, or the average trade return in week $t$. Avg Trade $\operatorname{Ret}(t-1)(\%)$ is a continuous variable equal to the return of trader $i$ in week $t-1$, represented as percentage points. $I(A v g \operatorname{Trade} \operatorname{Ret}(t-1)>0)$ is an indicator variable taking a value of 1 when returns in week $t-1$ are greater than 0 . The change in average trade size, the change in trade size variability, and the change in the number of trades, are represented as fractions. The sample in this regression is limited to $+/-0.5$ standard deviations $(+/-0.07 \%)$ around the origin. All regressions include week fixed effects, and trader fixed effects are included where noted. All regressions are OLS regressions. Standard errors are clustered at the trader and week level. $t$-statistics are in parentheses. *, **, *** denote significance at the $10 \%, 5 \%$, and $1 \%$ level, respectively.

| Dependent variable: | Change in Avg <br> Trade Size ( t ) |  | Change in Trade Size Variability ( t ) |  | Change in Numberof Trades $(\mathrm{t})$ |  | Average Trade Return (t) (\%) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| Avg Trade Ret (t-1) (\%) | $\begin{gathered} \hline-0.92 * * \\ (-1.99) \end{gathered}$ | $\begin{gathered} \hline-1.28^{* *} \\ (-2.34) \end{gathered}$ | $\begin{aligned} & \hline 0.99^{*} \\ & (1.91) \end{aligned}$ | $\begin{aligned} & 1.06^{* *} \\ & (2.14) \end{aligned}$ | $\begin{gathered} -4.69 * * * \\ (-4.39) \end{gathered}$ | $\begin{gathered} -8.76 * * * \\ (-7.25) \end{gathered}$ | $\begin{gathered} \hline 0.17 * * * \\ (3.35) \end{gathered}$ | $\begin{gathered} 0.04 \\ (0.55) \end{gathered}$ |
| $\times \mathrm{I}($ Avg Trade Ret $(\mathrm{t}-1)>0)$ | $\begin{gathered} 1.93 * * * \\ (3.13) \end{gathered}$ | $\begin{gathered} 2.41^{* * *} \\ (3.35) \end{gathered}$ | $\begin{gathered} -0.95 \\ (-1.27) \end{gathered}$ | $\begin{gathered} -0.52 \\ (-0.70) \end{gathered}$ | $\begin{gathered} 6.68^{* * *} \\ (4.81) \end{gathered}$ | $\begin{gathered} 16.71 * * * \\ (9.61) \end{gathered}$ | $\begin{gathered} -0.09 \\ (-0.95) \end{gathered}$ | $\begin{gathered} -0.07 \\ (-0.70) \end{gathered}$ |
| $\mathrm{I}($ Avg Trade Ret $(\mathrm{t}-1)>0)$ | $\begin{gathered} 0.11^{* * *} \\ (4.56) \end{gathered}$ | $\begin{gathered} 0.14 * * * \\ (6.20) \end{gathered}$ | $\begin{gathered} 0.16 * * * \\ (7.32) \end{gathered}$ | $\begin{gathered} 0.17 * * * \\ (8.84) \end{gathered}$ | $\begin{gathered} 0.48^{* * *} \\ (7.64) \end{gathered}$ | $\begin{gathered} 0.60^{* * *} \\ (9.62) \end{gathered}$ | $\begin{gathered} -0.0016 \\ (-0.63) \end{gathered}$ | $\begin{gathered} -0.0031 \\ (-1.25) \end{gathered}$ |
| Calendar FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Week FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Trader FE | No | Yes | No | Yes | No | Yes | No | Yes |
| Obs | 29,497 | 29,497 | 25,525 | 25,525 | 29,497 | 29,497 | 28,813 | 28,813 |
| $\mathrm{R}^{2}$ | 0.011 | 0.013 | 0.022 | 0.023 | 0.026 | 0.036 | 0.011 | 0.013 |

