Restriction, Not Prevention: Firm-Policies and Informed Trading

Abstract: We study the effectiveness of firm-level governance policies at restricting informed insider trading. Leveraging a 2022 SEC rule which required all publicly traded companies to disclose their internal insider trading policies, we identify firm-specific restricted trading periods (blackout windows) for almost 2,000 firms. Trading during blackout periods is common, with one third of all insider trades occurring inside a firm's blackout window. A survivorship bias mechanism best explains these observations, whereby firms allow trades to be executed in the blackout window if insiders credibly signal low levels of private information. Firm policies are most effective at reducing informed unscheduled purchasing by insiders, trades ex ante known to be the most informed.

JEL Classifications: G14, G34

Keywords: insider trading, corporate governance, blackout windows

1. Introduction

Corporate insiders trading while in possession of value-relevant non-public information has long been prohibited in the United States and most other developed financial markets.[1] Threats to market efficiency through adverse selection concerns are often cited as the primary motivation for such restrictions. This informed trading represents a classic agency conflict, whereby the private profits accrue to the insider while the investor and firm bear the costs, in the form of lost profits and higher cost of capital respectively. Therefore, the responsibility of mitigating informed insider trading falls onto regulators and firms. We study the latter of these entities, investigating the role and effectiveness of firm-level restrictions on insider trading.

Firms determine how they monitor and enforce insider trading through their internal insider trading policy (ITP). The most common item present in ITPs are pre-determined periods in which trading is restricted by the firm. For expositional ease, we refer to these times of restricted trading as blackout windows. Blackout windows are most commonly used to restrict trading around earnings announcements, when the information asymmetry between insiders and outsiders is likely to be large. While an intuitive name, it is important to note that blackout windows do not equate to periods where zero trading occurs. Despite policies stating that trading is not allowed, prior survey evidence has found significant trading during such periods (Bettis et al., 2000; Jagolinzer et al., 2011) as well as trading before earnings announcements (Ali & Hirshleifer, 2017). We find that not only is trading in these blackout windows nontrivial (approximately one third of all trades) but occurs broadly. 88% of firms have at least one transaction in a blackout window during our sample, with over 50% of insiders execute a trade in the blackout window.

[1] See for example (Securities Exchange Act of 1934, 2024) as well as a discussion of international regulations in Bhattacharya & Daouk (2002).

Given that such significant trading occurs, it is important to understand why we observe these trades at times that firm policies suggest there should be no trading. On one hand, insiders might view the ITP as cheap talk, existing for investor relations reasons without representing a real threat. Such cheap talk would result in observing the firm's blackout window having little effect on the number or informativeness of insider trades. On the other hand, firm's may have specific monitoring functions, such as pre-clearance or other verification steps, built into their processes which screens trades in the blackout window for private information. As such, firms may balance trading in a more nuanced way than pure restriction, instead only restricting those trades deemed to contain material non-public information. Our results largely support the latter mechanism, finding that trades which occur in firms' blackout windows (and hence have survived the underlying scrutiny of the firm) tend to be less profitable than open window trades.

For most of U.S. history, insider trading policies were internal documents which did not require disclosure. Such little disclosure required directly surveying companies or identifying voluntary disclosure of ITPs, limiting researchers' ability to broadly study firms' role in monitoring and prohibiting informed insider trading. In December of 2022, the SEC finalized a rule which was targeted at overhauling the 10b5-1 preplanned trading programs.[2] As part of the rule, beginning in fiscal year 2024, all public firms were required to disclose their insider trading policies as Exhibit 19 with their 10-K filing. We collect these policies to produce the first broad-based firm-level data set of ITPs, allowing us to systematically investigate the effectiveness of firm-level policies on insider trading outcomes for almost 2,000 public companies.

[2] Please see SEC Release Nos. 33-11138; 34-96492 https://www.sec.gov/files/rules/final/2022/33-11138.pdf.

Firms' role in monitoring and enforcing informed insider trading is a crucial component of maintaining fair and efficient markets. Although penalties to insiders from regulatory bodies such as the Securities and Exchange Commission (SEC) can be significant, they are often proportional to the amount of profit gained (or loss avoided) through the illegal trade. Firms on the other hand have power over the human capital of the insider, possessing the ability to terminate employment and affect future employability. For high level executives and employees, this loss of human capital can represent a significantly greater value than a potential fine from the SEC. Additionally, the SEC must prove in a court of law that the trading was illegal, making enforcement difficult and incentivizing insiders to make trades which are more difficult to attribute to them (Berkman et al., 2014; Goldie et al., 2023). Firms possess the ability to enforce punishments for suspicious trading, without necessarily needing to meet the burden of proof required in a courtroom.[3] Given the relatively low proportion of insider trading cases filed by the SEC (between 20-40 per year), understanding the effectiveness of firms' monitoring is crucial for understanding the restriction mechanism of informed trading by corporate insiders.

Ex ante, it is uncertain whether firms are incentivized to effectively prevent informed trading by their insiders. On one hand, perceived rampant insider trading may lead to adverse selection concerns, resulting in higher cost of capital and lower stock valuations (Brunnermeier, 2005). On the other hand, insider trading represents a relatively small portion of total trading, potentially reducing this concern (Jeng et al., 2003). Additionally, allowing insiders to trade on private information can represent a private benefit to the managers (Jensen & Meckling, 1976). To the extent that the profits from insider trading can substituted for salary, firms may extract a net

[3] For example, Walmart's 2024 ITP states, "Regardless of whether the government seeks to impose a penalty for a particular act, Walmart expressly reserves the right to impose any disciplinary measure or other action that it deems appropriate. This discipline may be imposed not only for unlawful conduct, but also for breaches of this policy or conduct Walmart regards as unethical, inappropriate, or simply not meeting its standards of propriety."

benefit from allowing informed trading (Roulstone, 2003). Our results are consistent with adverse selection concerns dominating, with firm policies effectively reducing informed trading by insiders, particularly among insider purchases.

We begin our analysis by examining the adoption and amendments to firms' ITPs. These increases in policy strictness have a sizable effect on the timing of insider trading. After the adoption of an ITP, the likelihood of observing an insider trade in that window is reduced by almost 19%. ITP amendments are associated with smaller but still meaningful reductions in blackout window trading, preceding a reduction of over 12%. While the reduction of blackout trading following changes to a firm's ITP is significant, it is notably far away from 100%. Thus, meaningful trading remains even after the implementation of firm-level restrictions.

Investigating the trades which occur in the blackout window, we find strong evidence that the monitoring mechanisms of firms are successful at screening out informed trading. Specifically, purchases in the blackout window are significantly less profitable than purchases in the open trading window, earning 2 basis points less of daily alpha (5% annually). The findings are similar for within-firm and within-insider specifications, further supporting that the policy drives the result as opposed to across firm differences in policy application or insider risk preferences. Additionally, we find that the difference in purchase informativeness is entirely driven by unscheduled purchases. For sales, there is little difference in the profitability of those executed inside versus outside of blackout windows. The dichotomy of effects is noteworthy given the fact that purchases are ex ante known to contain more valuable information, indicating that the blackout restrictions of firms is particularly effective at mitigating the most informative trades. Despite this reduced informativeness, we find evidence that insiders are wary of the optics of making such trades,

delaying the disclosure of both purchases and sales in the blackout window longer than open window trades.

Lastly, we follow prior literature and estimate our models using a uniform blackout window definition for all firms, with the earnings announcement date as the reference date. We find that using such a window can lead to insignificant, and sometimes directionally incorrect results relative to the true policy. As an example, insider sales appear to drive the reduction of profitability if a uniform window is applied, while purchases are indistinguishable between blackout and open window periods. These differential findings further support our interpretation that firm-level policies drive the reduction in informed trading. The important margin for trade informativeness is the timing relative to a firm's blackout schedule, not timing relative to its earnings schedule.

Leveraging our broad firm-level ITP data, we make several contributions to the insider trading literature. First, we contribute to the long literature which identifies heterogeneity in insider trade informativeness. Prior studies have documented many settings in which insider trades contain more information, such as at firms with greater information asymmetry (Aboody & Lev, 2000), trades by insiders with specific trading patterns (Akbas et al., 2020; Biggerstaff et al., 2020; Cohen et al., 2012; Hong & Li, 2019), and insiders with better information processing abilities (Alldredge & Cicero, 2015; Ben-David et al., 2019; Wang et al., 2012). We identify trades in blackout windows as a setting in which observed trades contain relatively less information about idiosyncratic firm prospects.

Second, we advance the understanding of firms' role in restricting informed trading. Like prior survey-based evidence, we show that a non-trivial amount of trading occurs in firm blackout windows (Bettis et al., 2000; Jagolinzer et al., 2011). Unlike these prior studies, our data allows us to show that the trading in blackout windows is not a result of prescheduled 10b5-1 plan trades but

also includes significant unscheduled trading.[4] We additionally find that the trades ex ante most likely to be informed (unscheduled purchases) see the largest reduction in profitability when executed in a blackout window. Our large data set also allows us to verify that our results remain consistent when using within-firm or within-insider variation, suggesting that the reduced profitability is policy driven and not a reflection of between-firm differences in blackout policies and informed trading.

Third, our paper serves as an important reference for future papers using blackout window trading as a variable of interest. While the lack of data on firm-level ITPs has restricted prior studies to apply a uniform window as a proxy for blackout periods (Ali & Hirshleifer, 2017; Lee et al., 2014; Roulstone, 2003), doing so potentially ignores valuable heterogeneity across firms which appears in the summary statistics of survey-based approaches (Bettis et al., 2000; Jagolinzer et al., 2011) and the empirical distribution of observed trades (Guay et al., 2023). As we show, differences between true blackout window trades and trades that are simply closer to earnings may lead to different inferences depending on the question at hand.

Lastly, we advance the understanding of the use and application of prescheduled 10b5-1 trading plans. Jagolinzer (2009) finds that such prescheduled plans do not necessarily prevent informed trading. While we verify his hypothesis that prescheduled trades are common in blackout windows, we find little evidence that they are notably more informed than open window prescheduled trades. To the extent that 10b5-1 trading plans can be used to hide informed trading, our results suggest that the mechanism is not due to the ability to make trades in otherwise restricted times.

[4] Approximately 28% of all blackout window trades are unscheduled.

Taken together, our findings suggest that the non-negligible amount of trading that occurs in firms' blackout windows is not reflective of firms failing to monitor their insiders. Instead, the existence of such trades is more consistent with survivorship bias, whereby trades which can be credibly signaled to be less informed are allowed to be executed in blackout windows, while those likely to be informed are effectively screened out.

2. Data

2.1. ITP Data

Insider trading policies were first required to be reported in fiscal year 2024. Therefore, we restrict our sample to firms in Compustat with fiscal year 2024 data. Using the SEC Central Index Key identifier, we collect all 2024 and 2025 10-K filings from the Electronic Data Gathering, Analysis, and Retrieval (EDGAR) website to retrieve Exhibit 19 for each potential sample company.

Exhibit 19 is unstructured narrative legal text. Companies describe their trading restrictions in prose, using firm-specific terminology, with restrictions anchored to a mixture of event-based references (earnings releases, 10-K and 10-Q filings, board determinations) and calendar-based references (fixed dates, nth weekday of a month, fractions of fiscal quarters). Across our sample we observe more than ten distinct ways to specify a single endpoint. For example, the close of a blackout period can be stated as "two business days after the public release of earnings", "the second trading day following the conference call", "the second full trading day after the Form 8-K is furnished", or simply "after the market has had a chance to absorb the information." A purely rule-based parser cannot capture this heterogeneity, and manual coding across more than 2,000 filings is infeasible at the level of accuracy required for an indicator that drives our main results.

We therefore use large language model workflow to extract the policy logic, paired with a multi-stage validation pipeline designed to catch the model's mistakes.

A central design choice is that we extract reusable rule logic rather than literal calendar dates. For each firm we record four key dates per fiscal quarter: the first and last day of the blackout period, and the first and last day of the open trading window. Each of these dates is expressed as a reference event (for example, the earnings announcement, the end of the fiscal quarter, or the 10-K filing date) together with a number of days before or after that event, or it is expressed as one of several special calendar patterns (for example, "the fifteenth of the third month of the quarter" or "the first full calendar week before quarter end"). Storing each policy at this rule level lets us apply the same firm's policy to multiple fiscal years using the firm's actual earnings and filing dates, rather than relying on year-specific dates from the filing text. It also forces the AI model to recognize when different phrases mean the same thing. For instance, "press release", "conference call", and "Form 8-K furnishing" all refer to the earnings announcement, which is essential for comparing one firm to another.

We use OpenAI's GPT-4.1 as the primary extraction model. The extraction prompt and output structure were developed iteratively on a held-out calibration sample of policies. Each new version of the instructions added a rule to fix a category of mistake we observed on that test set (for example, distinguishing prior-quarter earnings from current-quarter earnings, treating "business day" as equivalent to "trading day", and requiring the model to extract only one matched pair of dates per policy). Every request to the model includes the policy text, our instructions, and a strict structured output format that limits the model to a controlled vocabulary of reference events, day counts, and special-rule types. We require the model to fill in either the blackout dates or the open-window dates depending on how the policy is worded (for example, some policies

define the permissible trading window (e.g., “open window”) while others define the prohibited trading period (e.g., “blackout window”). We then derive the missing pair of dates ourselves later in the process defined as the complement of dates in that fiscal quarter. The resulting raw answers give us a structured policy record for each Exhibit 19 in our sample. The final outputs and the prompts we used to double-check them are available on request.

To ensure validity of the outputs, we subject the raw extractions to three automated quality control layers. The first layer is a basic consistency check that confirms each record meets requirements that must hold regardless of the underlying text: required fields are filled in, the start of the blackout falls before the end, the right kinds of reference events are used in the right places, and all four quarters of the year are accounted for. The second layer is a second-opinion check by another AI model: records that pass the first layer are read by Google’s Gemini 2.5 Pro, which is shown the original wording from the filing alongside the structured record and asked whether the two agree; difficult or high-stakes cases are then sent to a third model, Anthropic’s Claude Sonnet 4, and disagreements are resolved by majority vote. The third layer compares each record to the rest of the sample: we compute the typical range of day counts for each combination of boundary and reference events using only the records that passed the first two layers without correction, and we flag records whose day counts fall outside that typical range for additional scrutiny.

Flagged extractions go through multiple progressive correction rounds, each targeting a distinct error category identified by the audit. A small number of policies that describe genuinely one-off or non-recurring restrictions cannot be fit into the standard rule structure; we set these aside as an “unfixable” set and drop them from analyses that require a complete set of quarterly rules. In addition, a research assistant manually reviewed a randomly selected sample of 100 policies, reading the original Exhibit 19 text and comparing it to our structured record. This manual

spot-check confirms that our output agrees with the underlying policy in the great majority of cases, with the few remaining disagreements concentrated in the same patterns the automated audit had already flagged.

The corrected rule set is then passed to a deterministic date calculator that resolves each endpoint rule to concrete calendar dates for every fiscal quarter in the sample. The calculator implements the NYSE trading calendar including observed holidays, handles all special-rule patterns and cross-quarter anchor offsets, and produces a quarter-level dataset of blackout and open-window date intervals keyed by company and fiscal quarter. These intervals are merged into the insider trading panel and used to construct the blackout-window indicator that appears in our main specifications. Appendix B provides three worked examples (a standard earnings-anchored blackout, a fixed-calendar-date blackout, and a policy written as a permitted trading window rather than a blackout) that illustrate how very differently worded source policies map onto the same common structure.[5]

Our collection procedure results in the collection of 2,067 unique firm ITPs, 1,965 of which have valid trading data. Examples of ITPs can be found in appendix A. Table 1 presents summary statistics for the fiscal year 2024 ITPs. For the average quarter, 50 of the 90 days fall within a blackout window, spanning 47 days before an earnings announcement through two days following the announcement. There exists significant variation across firm blackout windows, with a standard deviation in blackout window length of 10 days. Other common components of ITPs include required pre-clearance of trades and blackout window exclusions for 10b5-1 preplanned

[5] While we have a high level of confidence in our data collection procedure, we have conducted robustness tests of our results in which we vary the window cutoffs by one day in either direction. All our results are quantitatively and qualitatively unchanged by varying the window cutoffs by a day on either side, supporting that our inferences are not driven by trading on the periphery of blackout windows.

trades (henceforth 10b5-1 trades). 98% of the firms in our sample require that trades get pre-cleared by someone in the firm, with over 60% restricting the length of time that the pre-clearance is valid. 97% of firms specifically allow for the execution of 10b5-1 trades during blackout periods. Finally, almost 80% of firms explicitly prohibit the pledging of company stock as collateral for a loan.

2.2. Insider Trading Data

We collect insider trading data from LSEG. Following prior literature, we exclude trades with a cleanse flag of "A" or "S", small trades of less than 100 shares, as well as trades which exceed the total daily trading volume of the stock or trade at a price outside of the daily bid-ask spread. For insiders who make multiple trades in a single day, we aggregate data to the insider-firm-trade day level, with trade variables representing the net trading by the insider that day. We additionally require that the firm has positive total assets, market capitalization and non-missing CIK for merging with the ITP data. Finally, we require that the time between earnings announcements in which the trade occurs is no less than 60 and no more than 120 days to study regular trading conditions unaffected by delayed filings or changes in fiscal calendar reporting.

Our sample spans January 2018 through December 2025. This window is chosen to balance statistical power and ITP applicability. While we identify verifiable blackout windows through the ITPs collected for fiscal year 2024, the exact wording of the policy before this period is unobservable. We therefore use the empirical distribution of reported ITP adoption dates to motivate our sample. Specifically, 752 firms explicitly state the adoption date of their ITP, with the earliest dating back to 1981. We use the 25th percentile of this distribution (2018) as the cutoff for our sample. While prior evidence suggests that ITPs are slow to change (Jagolinzer et al., 2011), robustness tests confirm that our results hold when restricting the sample only to those trades after

ITP adoption or amendment dates. These filters result in a final insider trading sample of 211,558 insider-firm-day observations.

Our primary variable of interest is $Blackout\ Trade$, an indicator variable equal to one if the trade occurs in a firm's blackout window and zero otherwise. For data after fiscal year 2024, we use the most updated version of the firm's ITP that has been released. For data prior to fiscal year 2024, we use the blackout window rules from the fiscal year 2024 ITP, along with prior earnings and fiscal quarter dates, to impute what the blackout window would have been if the policy had been in place. Additionally, we calculate a variable $JLT\ Blackout\ Trade$ which is equal to one if the trade occurs in the interval $[t-46, t+1]$ relative to an earnings announcement at date t. This fixed window parameter is based on the summary statistics from the sample of firms in Jagolinzer et al. (2011).

We construct control and outcome variables common to the literature from Compustat and CRSP. Variable definitions can be found in Table 2 and Table A1 of the appendix A. We additionally use the information from LSEG insider trading database to construct measures of insider position, value of the trade, and an indicator if the trade is part of a 10b5-1 prescheduled trading plan. All firm and trade continuous variables are winsorized at the 1% and 99% levels of their sample distributions.

The summary statistics from the insider trading sample are reported in Table 2. Consistent with evidence from the survey-based approach in prior studies, a non-trivial portion of trading occurs during firm blackout windows, with over one third of trades being classified as blackout

trades.[6] Figure 1 provides a histogram of trade frequency in event time relative to an earnings announcement. Although trading is reduced further into a quarter, it never approaches zero. These descriptive facts pose the question of why insiders can trade in such high quantities during supposedly restricted periods.

3. Results

3.1. ITP Adoption/Amendment

We begin our analysis by examining whether insider trading behavior is responsive to ITPs. For 752 ITPs, the firm reports its adoption date. Additionally, 1,084 firms provide the most recent amendment date. The adoption of an ITP represents an increase in firm-level scrutiny over insider trading behavior. Although we do not observe the previous version of an ITP relative to an amendment date, the longer length of blackout windows in our sample compared to prior studies and the general trends of stricter corporate governance suggest that the amendments also likely represent increases to insider trading restrictions by the firm. To investigate whether insider trading is responsive to such firm-level policy changes, we estimate the following OLS regression:

$$Blackout\ Trade_{ijt} = \beta_1 Post_{ijt} + \gamma X_{ijt} + \eta_j + \theta_y + \varepsilon_{ijt} \quad (1)$$

$Blackout\ Trade_{ijt}$ is an indicator variable equal to one if insider i at firm j makes a trade on day t which is in the firm's reported blackout period and zero otherwise. $Post_{ijt}$ is either defined as $Trade\ After\ Adoption$ or $Trade\ After\ Amendment$ which are indicator values equal to one if the trade occurs after the ITP adoption or amendment date respectively. X_{ijt} is a vector of firm and insider controls, and η_j θ_y capture firm and year fixed effects respectively. β_1 captures the within-

[6] Table A2 in the appendix provides summary statistics separately for blackout window and open window trades. Overall, the samples are relatively similar, with the two largest differences being that a greater proportion of trades in blackout windows are sales and prescheduled trades.

firm difference in likelihood of a trade occurring in the blackout window after the adoption/amendment of a policy relative to before. To the extent that insiders respond to firm-level insider trading policies, we anticipate $\beta_1 < 0$.

The estimates of equation 1 are reported in Table 3. For both ITP adoptions and amendments, the date of the change precedes a reduction in the likelihood of observing a blackout trade. Column 2 of Table 3 suggests that after adoption of an ITP, the likelihood of an insider executing a trade in the blackout window decreases by 6.5 percentage points. Relative to the sample average of 34% of trades occurring in blackout windows, this represents approximately a 19% reduction in likelihood. A smaller but significant result exists for amendments (12%), consistent with amendments representing smaller shocks to insider trading restrictions. While this evidence is consistent with insiders responding to ITPs through their trading behavior, changes to ITPs are endogenous to the firm, which is governed by insiders. Therefore, we cannot rule out that changes to ITPs (either adoptions or amendments) are observed when insiders have decided to trade further away from earnings dates, resulting in observing changes to ITPs and reductions in blackout trading dates.

Notably, Brochet et al. (2026) find a much stronger effect on trading when the restrictions come from a regulatory authority. Using the introduction of mandatory restricted trading periods by the European Union, the authors find that insiders in treated countries reduce trading in the thirty days before an earnings announcement by 58%. Therefore, while the 19% reduction is sizable, firm-level policy changes appear to allow for more leniency and edge case exceptions than regulatory-level restrictions.

While we cannot observe the underlying process which generates changes to ITPs, we can investigate how the process relates to the recent ITP disclosure laws. Prior research suggests that

both firms and individuals change behavior in the presence of required disclosure (Admati & Pfleiderer, 2000; Brochet, 2010; Bushee & Leuz, 2005). Given that ITPs were internal documents, with disclosure being voluntary and not widespread, the law change represents a significant shock to how outside investors may view insider trading. Prior to the law, outside investors could only observe the day a trade was executed, without knowledge of whether the execution was in a restricted trading window. After the law became effective, investors could identify whether the trade occurred in the restricted window by comparing the date with the ITP through EDGAR.

Figure 2 plots the distribution of ITP amendment dates for our sample by month. Notably, amendments cluster around the two important dates of the law's progression, its passage in December 2022 and its enactment for fiscal year 2024 (reports occurring in 2025). We do not observe a notable spike in amendments at the turn of the year in 2024, something one would anticipate if firms mechanically amend their ITPs on regular schedules that correspond to new calendar years. Taken together, the results in Table 3 and Figure 2 are consistent with firms making their ITPs stricter in response to the disclosure requirements passed by the SEC and insider trading behavior responding to such changes.

3.2. Blackout Trade Profitability

Given that a non-trivial portion of insider trading occurs within companies' blackout windows, we next investigate the information content of such trades. To the extent that firm policies are effective at restricting informed trading, we would anticipate that any observed violations have been properly screened to contain less value relevant information (Bettis et al., 2000). If instead, blackout window trades reflect insider opportunism and a disregard of company

policies, then we would anticipate such trades to contain more value relevant information (Ali & Hirshleifer, 2017; Jagolinzer et al., 2011).

Following prior literature, we proxy for trade informativeness with trade profitability. For each trade in our sample, we estimate $\alpha_{4Factor}$, defined as the daily four factor alpha (Carhart, 1997; Fama & French, 1993) estimated using daily data for six months following the trade. The six-month window is selected given the SEC's short swing rule, requiring insiders to forfeit profits for any trade with a holding period of less than six months. We then estimate the following model,

$$\alpha_{4Factor,ijt} = \beta_1 Blackout\ Trade_{ijt} + \gamma X_{ijt} + \theta_m + \varepsilon_{ijt} \quad (2)$$

We use the same set of control variable X_{ijt} as in equation 1, as well as year-month fixed effects θ_m. Our coefficient of interest is β_1, comparing the profitability of trades in the blackout window with those outside of the window.

The results of this estimation are reported separately for insider purchases and sales in Table 4. The coefficient on $Blackout\ Trade$ is negative in column 1, indicating that purchases in blackout windows earn 2 basis points lower alpha per day (over 5% annualized) relative to purchases outside of the blackout window.[7] Columns 2 and 3 include firm and insider-firm fixed effects respectively, with the coefficient remaining similar in terms of magnitude and statistical significance. The reduced profitability of purchases in the blackout window is therefore not a result of cross-sectional firm and insider differences in policy lenience or risk aversion. Instead, firm-level policies appear to effectively screen out informed purchases during restricted trading windows, resulting in largely uninformed purchases surviving. Columns 4-6 estimate the model

[7] $.000206 \times 252 \approx .052$

for insider sales, with results being notably smaller in magnitude and statistically indistinguishable from zero across specifications.

To better understand how firm's ITPs determine insider trading informativeness, we augment equation 2 by including an interaction term $Blackout \times Rule\ 10b5\ Trade$. Given that nearly all firms in our sample provide exceptions for 10b5-1 preplanned trades in blackout windows, we expect that screening should be stricter for unscheduled trades. Table 5 provides the results of this augmentation. The coefficient estimate of $Blackout\ Trade$ remains negative and statistically significant across all three purchase specifications, while the interaction term is statistically insignificant. Therefore, the reduction in profitability is entirely driven by a reduction in unscheduled trade profitability. Meanwhile, scheduled purchases are indistinguishable in their profitability between whether they occur in the blackout window or in allowed trading windows. The result in Table 5 is consistent with a governance substitution mechanism, whereby less scrutiny is allocated to trades covered by a 10b5-1 scheduled trading plan.

Together, Tables 4 and 5 support the survivorship inference for the frequent trading observed in blackout windows. Despite seemingly large amounts of trading which violates firm's ITPs, these trades do not appear to result from opportunistic insiders capitalizing on material information. Instead, these trades tend to be less informed, consistent with firm-level governance mechanisms successfully screening out informed trades and preventing them from occurring. The screening mechanism is consistent with the fact that the reduction in profitability is concentrated in unscheduled insider purchases, trades known ex ante to be the most likely to contain value relevant information.

3.3. Blackout Trade Disclosure

Beyond affecting the types of trades that insiders make, ITPs may also affect the timeliness in which the public is informed of the trade. While Sarbanes-Oxley has required since 2003 that insider trades should be reported within two business days, prior research has found that insiders delay disclosure to reduce attention toward certain trades (Biggerstaff et al., 2020; Cline & Houston, 2023). To the extent that trades which violate ITP blackout windows might draw more scrutiny from investors, we predict that there will be a longer delay between the trade and eventual disclosure. To test this hypothesis, we estimate the model,

$$Reporting\ Delay_{ijt} = \beta_1 Blackout\ Trade_{ijt} + \gamma X_{ijt} + \theta_m + \varepsilon_{ijt} \quad (3)$$

$Reporting\ Delay$ is the number of days between the insider's trade and the date on which the trade is disclosed to the public via Form 4. If trades which violate the ITP blackout window are disclosed with greater delay, then we anticipate $\beta_1 > 0$.

The results of this analysis are provided in Table 6. Across all specifications for purchases and sales, insider trades which occur in the blackout window tend to be reported later than those not in the blackout window. Table 7 includes an interaction term $Blackout \times Rule\ 10b5\ Trade$. Consistent with Table 5, the effects are concentrated in unscheduled trades. For sales, the coefficient on the interaction term is negative and statistically significant. Economically, the interaction coefficient attenuates the estimated reporting delay to zero, indicating that the only blackout sales which have a longer reporting delay are those that truly violate the ITP by not qualifying for the 10b5-1 preplanned exemption. Combined, these results suggest that insiders are aware that blackout trades may be scrutinized more heavily by investors. Interestingly, prior research which documents delays in insider trading disclosure tends to find that it concentrates in more profitable trades, consistent with a model of informed traders wishing to maintain their informational advantage (Kyle, 1985). However, delays of blackout trades appear more

reputationally motivated, as the trades for which disclosure is being delayed are not those with notable profitability, but those which violate the firm's ITP.

3.4. Fixed Blackout Windows

The lack of data with respect to firm-level trading restrictions has led researchers historically to apply uniform blackout windows to all companies as a way of proxying for restricted trading (Ali & Hirshleifer, 2017; Lee et al., 2014; Roulstone, 2003). Such applications appear reasonable, given the general correlation between true blackout windows and earnings announcements as shown in Figure 1 and the empirical distribution of trading (Guay et al., 2023). However, as our summary statistics show, significant variation exists across firms with respect to the length and timing of their restricted trading periods. Given that these differences are endogenous and may vary in non-random ways, it is important to consider whether the use of fixed windows to identify blackout trading is a sufficient proxy. Analyzing trading in a fixed window across firms additionally allows us to identify whether our results are driven by proximity to the earnings announcement as opposed to the specific firm trading policy.

To analyze how our results are affected by using uniform blackout windows, we follow prior literature and use the average window length from prior surveys as the blackout period for all companies. Specifically, we construct the variable $JLT\ Blackout\ Trade$, which is an indicator variable equal to one if the trade occurs in the window $[t-46, t+1]$ relative to an earnings announcement at date t based on the summary statistics of Jagolinzer et al. (2011). We then re-estimate equations 2 and 3, replacing $Blackout\ Trade$ with $JLT\ Blackout\ Trade$.

Table 8 reports the results of the re-estimation of equation 2. While the fixed window technique results in a similar conclusion that blackout trades are less profitable than non-blackout

trades, the location of the effect is reversed. Purchases that truly violate a firm's blackout window are significantly less profitable than purchases outside of the blackout window, while sales are largely indistinguishable. Meanwhile, using a uniform blackout window across all firms would suggest that sales in this period are less profitable than sales outside of the blackout window. We additionally find different results when applying a uniform window in Table 9. There is little evidence that there exists a reporting delay for trades which violate the uniform blackout window and those that do not.

The findings in Tables 8 and 9 highlight the value of firm-specific ITPs on insider behavior and emphasize the importance of using such policies for researchers. By applying a uniform window across firms, one omits significant inter-firm variation in blackout window timing. That variation results in vastly different inferences about the effects of blackout windows on insider trading. These differential results indicate that the misclassifications introduced by applying a uniform trading window contain important information about the underlying relation between firm-level insider trading policy and subsequent insider trading. These differences further highlight that the presence of a firm-level blackout window is the important determinant of our main findings, not simply relative timeliness to earnings announcements.

4. Additional Analyses

Prior research has shown that percentage returns to insider trading are inversely related to trade size (Cziraki & Gider, 2021). Given this relation, and that insiders ultimately care about dollar profits as opposed to percentage profits, using alpha as a proxy for trade informativeness may give incorrect conclusions. We therefore repeat the analyses for Tables 4-5 using a dependent

variable of α_{Dollar}, which is equal to the daily four factor alpha multiplied by the dollar value of the trade. α_{Dollar} transforms the abnormal percentage return into an abnormal dollar return.

The results are provided in Tables 10 and 11. We find results largely consistent with our return-based specification. Insider purchases are significantly less profitable from a dollar perspective if they occur in the firm's blackout window. Column 2 of Table 10 suggests that within the same firm, a purchase in the blackout window results in abnormal dollar profit of $1,093 less than a purchase not in the blackout window. This effect is economically significant, given that average dollar alpha of an insider purchase is $436. Table 11 once again finds that this effect is concentrated among the unscheduled insider purchases.

Table 12 re-estimates equation 2 using the subsample of firms with explicitly stated adoption and amendment dates for their ITPs. While our main analysis relies on imputing blackout dates for trades that occur before these dates (or for firms without stated adoption/amendment dates), Table 12 reports results for the subsample of trades that are known to be after such dates. We find similar results to our primary analysis, with the economic magnitude increasing. The coefficient estimate of $Blackout\ Trade$ in column 2 of Table 12 implies that within the same firm, purchases in the blackout window are -3.57 basis points per day (-9% annually) less profitable than purchases outside of the blackout window.

Finally, Table 13 includes fixed effects for the firm's industry and number of days until the upcoming earnings announcement. One concern may be that firms with longer blackout windows have more blackout trades that are at times of lower information asymmetry, such as farther away from earnings announcement dates. This specification allows us to compare the informativeness of trades for firms in the same industry, with the same length of time until the earnings announcement, to identify whether trades which survive the scrutiny of occurring in the blackout

window are less informed irrespective of time in the window. The results remain consistent, with purchases violating a firm's ITP tending to be less informed. For purchases by insiders at two firms in the same industry, with the same number of days until an earnings announcement, the purchase which violates the firm's ITP earns a daily alpha of -2.18 basis points lower than the purchase which does not occur in the blackout window.

5. Conclusion

We collect almost the insider trading policies of almost 2,000 publicly traded firms to investigate the effectiveness of firms in restricting informed insider trading. We find that a non-trivial amount of trading occurs in these windows, including trading which explicitly violates the stated policy in the form of unscheduled trades. Despite this trading frequency, we provide evidence that firm policies are largely successful at curbing informed trading. Our findings are consistent with a survivorship bias explanation for the observed trading activity in restricted periods. Trades which are allowed to be executed in blackout windows tend to be ex post less informative, something that the insider could have potentially signaled to the firm ex ante to gain permission for trading. The reduced informativeness is concentrated in trades known to be the most likely to contain private information, unscheduled insider purchases. We additionally show that it is trade timing relative to the firms' restricted window, not relative to earnings, that determines trade informativeness. Overall, our results support the idea that firms are effective in filling their important role of mitigating the informed trading of their insiders.

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Figure 1 - Distribution of Insider Trades Within Earnings Reporting Cycle

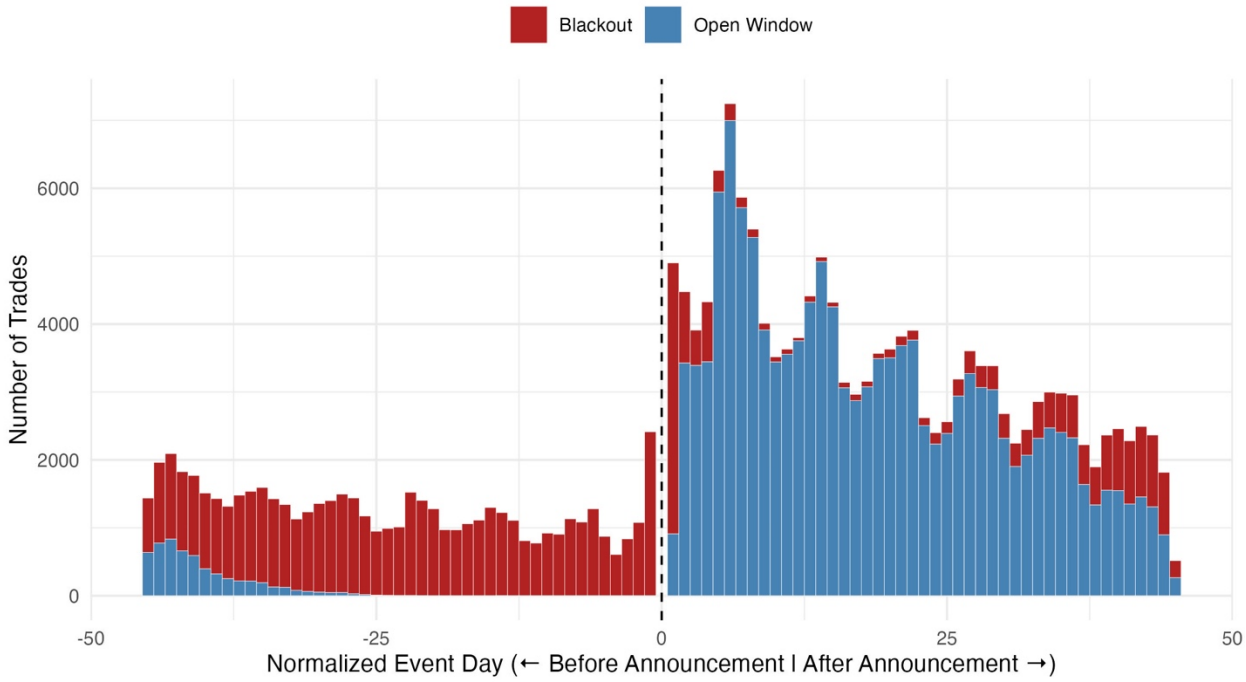

Figure 2 - Frequency of Insider Trading Policy Amendments by Month

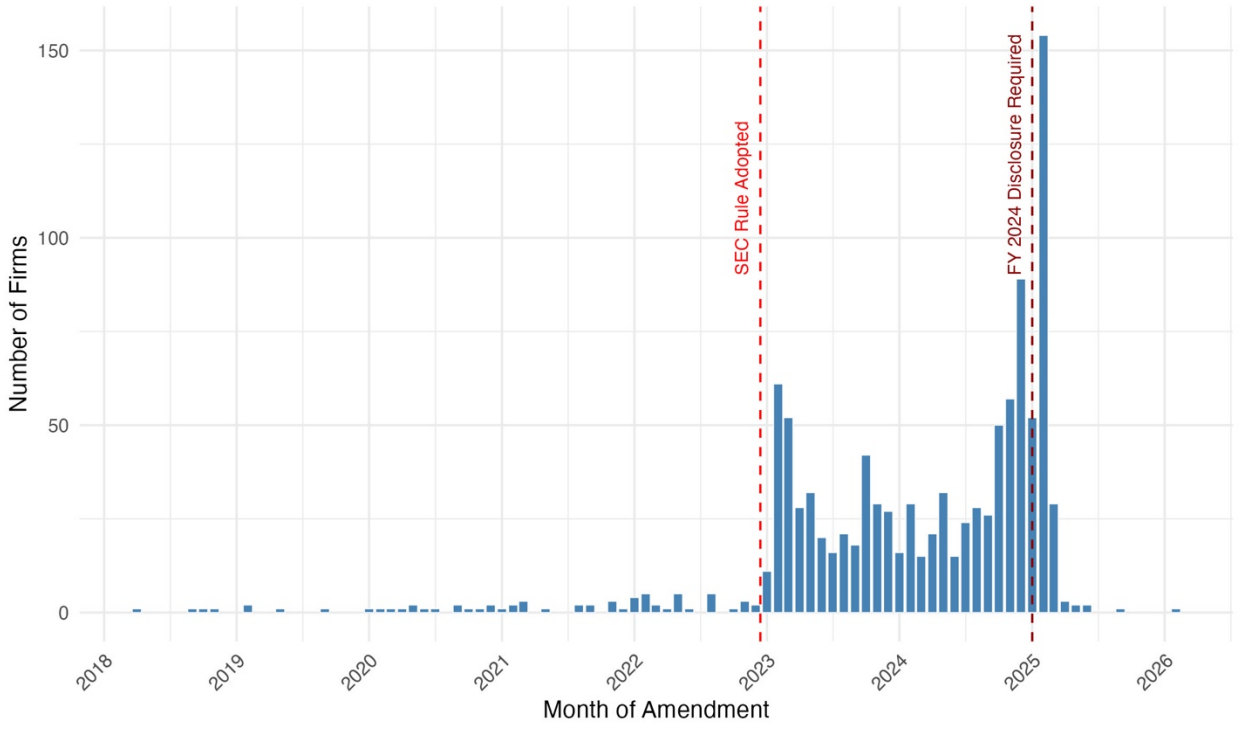

Table 1 – ITP Summary Statistics

This table provides summary statistics for the insider trading policies (ITPs) in our sample. Blackout Days (Total) are the total number of blackout days in a quarter. Blackout Days (Pre-Earnings) are the total number days in a restricted trading window before an earnings announcement in a quarter. Blackout Days (Post-Earnings) are the total number of days in a restricted trading window after the earnings announcement in a quarter. Requires Pre-Clearance is an indicator variable equal to one if someone at the firm must approve a trade before it is executed. Pre-Clearance Lead Time Reqd. is an indicator variable equal to one if pre-clearance must be obtained at least one day in advance of a trade. Pre-Clearance Lead Time (Days) is the number of days in advance that a trade must obtain pre-clearance. Pre-Clearance Expiration Reqd. is an indicator variable equal to one if the pre-clearance has an expiration date. Pre-Clearance Valid (Days) is the number of days that the insider has to make a trade after obtaining pre-clearance. Prohibits Pledging is an indicator variable equal to one if the ITP prohibits the use of company stock as collateral for a loan. 10b5-1 Plan Exemption is an indicator variable equal to one if preplanned 10b5-1 trades are exempt from the blackout window of the ITP.

	N	Mean	SD	P1	P25	Median	P75	P99
Blackout Days (Total)	1,965	50.01	10.05	24	44	51	56	73
Blackout Days (Pre-Earnings)	1,965	46.88	9.84	21	40	48	53	69
Blackout Days (Post-Earnings)	1,965	2.10	1.96	0	1	2	3	9
Requires Pre-Clearance	1,965	0.98	0.14					
Pre-Clearance Lead Time Reqd.	1,965	0.50	0.50					
Pre-Clearance Lead Time (Days)	1,965	1.01	1.12	0	0	0	2	3
Pre-Clearance Expiration Reqd.	1,965	0.62	0.49					
Pre-Clearance Valid (Days)	1,965	2.34	2.61	0	0	2	5	10
Prohibits Pledging	1,965	0.79	0.41					
10b5-1 Plan Exemption	1,965	0.97	0.16					

Table 2 – Insider Trading Summary Statistics

This table presents summary statistics for our insider trading sample. Variable definitions can be found in Table A1 of appendix A. All continuous firm and return variables are winsorized at the 1% and 99% levels of their sample distributions. $Blackout\ Trade$ is an indicator equal to one if the trade occurs in the firm's blackout window. $JLT\ Blackout\ Trade$ is an indicator equal to one if the trade occurs within the window $[t-46, t+1]$ relative to an earnings announcement date t. $Purchase$ is an indicator variable equal to one if the insider is a net purchaser that trading day and 0 if they are a net seller. $Rule\ 10b5\ Trade$ is an indicator equal to one if the trade is part of a preplanned trading program. $Trade\ Value$ is the dollar value of the trade. CEO, CFO, $Board\ Chair$, $Manager$, and $Director$ are indicator variable for the insider's position from their form 4. Definitions of each variable can be found in Table A2 of appendix A. $\alpha_{4Factor}$ is the daily alpha in basis points from the 4-factor model estimated over the subsequent six months after the trade. $Mkt\ Cap$ is the firm's market capitalization in millions. $Return_{[m-1]}$ and $Return_{[m-12,m-2]}$ are the stock returns over the past year, split between the prior month and the prevailing 11 months respectively. $Volatility$ is the standard deviation of the prior month's stock returns. $ILLIQ$ is the Amihud (2002) measure of illiquidity. $\%\ Inst\ Ownership$ is the percent of shares outstanding owned by institutions. $Stock\ Comp$ is stock-based compensation as a percent of total operating expense. ROA is income before extraordinary items scaled by total assets. $Leverage$ is total debt scaled by assets. $Book\ to\ Market$ is book value of equity scaled by market capitalization.

	N	Mean	SD	P1	P25	Median	P75	P99
$Blackout\ Days$	211,558	53.88	12.32	26	46	53	61	85
$Blackout\ Trade$	211,558	0.34	0.47					
$JLT\ Blackout\ Trade$	211,558	0.30	0.46					
$Purchase$	211,558	0.12	0.33					
$Rule\ 10b5\ Trade$	211,558	0.46	0.50					
$Trade\ Value$	211,558	1,908,790	5,368,747	3,396	91,931	335,767	1,232,369	39,842,940
CEO	211,558	0.16	0.37					
CFO	211,558	0.086	0.28					
$Board\ Chair$	211,558	0.0091	0.095					
$Manager$	211,558	0.40	0.49					
$Director$	211,558	0.26	0.44					
$\alpha_{4Factor}$	205,516	2.09	22.80	-59	-11	1.1	13	82
$Mkt\ Cap$	211,558	27,099	85,388	69	1,313	4,006	15,307	665,827
$Return_{[m-1]}$	211,439	0.03	0.14	-0.32	-0.052	0.022	0.098	0.52
$Return_{[m-12,m-2]}$	201,702	0.27	0.65	-0.74	-0.092	0.15	0.45	3.5
$Volatility$	211,332	0.028	0.016	0.0076	0.017	0.024	0.035	0.091
$ILLIQ$	211,332	0.0072	0.027	0.0000028	0.0001	0.00049	0.0021	0.2
$\%\ Inst.Ownership$	209,687	0.77	0.20	0.15	0.68	0.83	0.93	1
$Stock\ Comp$	211,558	0.066	0.073	0	0.0096	0.033	0.1	0.31
ROA	211,558	-0.0005	0.043	-0.18	-0.01	0.0058	0.021	0.11
$Leverage$	211,558	0.26	0.23	0	0.066	0.23	0.4	1.1
$Book\ to\ Market$	200,639	0.37	0.36	0.01	0.11	0.24	0.5	1.9

Table 3 – Blackout Trading After Adoption/Amendment

This table provides estimates of a linear probability model of blackout trading for the sample of firms that have explicit amendment or adoption dates for their ITPs. $Trade\ After\ Adoption$ is an indicator variable equal to one if the trade occurs after an adoption date and zero otherwise. $Trade\ After\ Amendment$ is an indicator variable equal to one if the trade occurs after an amendment date and zero otherwise. Control variable definitions can be found in Tables 2 and A1. Standard errors are two-way clustered at the firm and month levels. Statistical significance of 10%, 5%, and 1% are represented with *, **, and *** respectively.

	$Blackout\ Trade$			
	(1)	(2)	(3)	(4)
$Trade\ After\ Adoption$	-0.063***	-0.065***		
	(-4.40)	(-6.29)		
$Trade\ After\ Amendment$			-0.059***	-0.043**
			(-5.39)	(-3.10)
$Rule\ 10b5\ Trade$		0.35***		0.32***
		(15.37)		(14.98)
$Purchase$		-0.052**		-0.027*
		(-3.42)		(-2.07)
$Log(Trade\ Value)$		-0.013***		-0.009**
		(-3.84)		(-2.42)
CEO		-0.14***		-0.13***
		(-3.67)		(-5.17)
CFO		-0.17***		-0.15***
		(-4.55)		(-5.17)
$Director$		-0.17***		-0.17***
		(-5.21)		(-6.15)
$Manager$		-0.17***		-0.15***
		(-5.06)		(-5.80)
$Board\ Chair$		-0.097		-0.11**
		(-1.61)		(-2.69)
$Log(Mkt\ Cap)$		-0.017		-0.015
		(-1.13)		(-0.88)
$Return_{[m-1]}$		-0.06		-0.10
		(-0.86)		(-1.47)
$Return_{[m-12,m-2]}$		0.009		0.001
		(1.11)		(0.083)
$Volatility$		-1.73*		-1.40
		(-2.18)		(-1.75)
$ILLIQ$		-0.25		-0.24
		(-0.76)		(-1.41)
$Book\ to\ Market$		-0.028		-0.049**
		(-1.24)		(-2.75)
ROA		-0.26		-0.16
		(-1.49)		(-1.67)
$Leverage$		-0.036		-0.042
		(-1.53)		(-0.82)
$Stock\ Comp$		-0.20*		-0.01
		(-2.29)		(-0.084)
$\%\ Inst.\ Ownership$		-0.051		0.056
		(-1.27)		(1.13)
N	73,399	64,987	114,692	103,464
Year FE	X	X	X	X
Firm FE	X	X	X	X
R^2	0.18	0.28	0.19	0.27

Table 4 – Blackout Trade Profitability

The dependent variable is the daily four-factor alpha (in basis points) estimated over the 126 trading days following an insider trade. Columns 1-3 consist of the sample of insider purchases. Columns 4-6 consist of the sample of insider sales. Variable definitions can be found in Tables 2 and A1. Standard errors are two-way clustered at the firm and month levels. Statistical significance of 10%, 5%, and 1% are represented with *, **, and *** respectively.

	$\alpha_{4Factor}$					
	Purchases			*Sales*		
	(1)	(2)	(3)	(4)	(5)	(6)
Blackout Trade	-2.06**	-1.66*	-2.10**	0.34	0.32	0.20
	(-2.10)	(-1.71)	(-2.17)	(1.14)	(1.48)	(0.98)
Rule 10b5 Trade	-0.33	-2.72	-3.51	0.017	-0.31	-0.80**
	(-0.13)	(-1.23)	(-1.14)	(0.041)	(-0.92)	(-2.23)
Log(Trade Value)	0.30	0.22	-0.051	0.15	-0.046	-0.19*
	(1.07)	(0.98)	(-0.18)	(1.06)	(-0.56)	(-1.84)
CEO	-1.33	-3.25*	-7.60	-0.024	0.92	0.91
	(-0.72)	(-1.67)	(-1.15)	(-0.015)	(0.89)	(0.45)
CFO	3.58	-1.23	-13.53**	-0.04	0.84	3.01
	(1.61)	(-0.60)	(-2.00)	(-0.024)	(0.79)	(1.23)
Director	1.56	-1.75	-6.18**	0.16	1.05	0.82
	(0.80)	(-0.93)	(-2.51)	(0.11)	(1.07)	(0.55)
Manager	1.31	-2.37	-7.78	0.12	0.84	0.76
	(0.63)	(-1.19)	(-0.98)	(0.075)	(0.83)	(0.38)
Board Chair	-1.64	-4.11	0.78	0.39	3.22	2.16
	(-0.55)	(-1.18)	(0.11)	(0.20)	(1.43)	(0.94)
Log(Mkt Cap)	-0.69**	-16.20***	-19.81***	0.023	-16.82***	-18.84***
	(-2.25)	(-7.43)	(-7.67)	(0.11)	(-14.12)	(-14.91)
$Return_{[m-1]}$	1.88	0.00	1.83	1.13	2.75	1.31
	(0.52)	(0.00)	(0.52)	(0.56)	(1.35)	(0.65)
$Return_{[m-12,m-2]}$	-0.36	2.20	1.77	1.93*	2.76**	2.23*
	(-0.37)	(1.52)	(1.04)	(1.82)	(2.44)	(1.93)
Volatility	138.28***	32.83	39.00	75.53***	0.91	-8.65
	(3.02)	(0.83)	(0.99)	(2.99)	(0.039)	(-0.38)
ILLIQ	47.13**	52.93**	44.72*	-11.78	51.37	59.64**
	(2.53)	(2.41)	(1.79)	(-0.41)	(1.65)	(2.14)
Book to Market	1.94	5.67*	5.97*	2.34**	-3.16	1.05
	(1.39)	(1.87)	(1.71)	(2.11)	(-1.12)	(0.33)
ROA	-37.50**	-21.60	-23.66	-21.15**	-25.01*	-28.44**
	(-2.63)	(-1.31)	(-1.13)	(-2.04)	(-1.96)	(-2.12)
Leverage	1.36	-6.45	-13.33	2.81	0.19	2.11
	(0.43)	(-0.84)	(-1.34)	(1.63)	(0.048)	(0.48)
Stock Comp	-0.58	-46.49*	-19.67	1.57	-29.41**	-26.18*
	(-0.045)	(-1.80)	(-0.68)	(0.23)	(-2.21)	(-1.95)
% Inst. Ownership	1.24	-14.35**	-23.47***	-6.25***	-22.08***	-27.98***
	(0.48)	(-2.12)	(-2.92)	(-3.15)	(-3.33)	(-4.35)
N	21,792	21,605	18,011	162,879	162,837	157,990
Month FE	X	X	X	X	X	X
Firm FE		X			X	
Insider-Firm FE			X			X
R^2	0.078	0.43	0.59	0.037	0.27	0.41

Table 5 – Blackout Trade Profitability (10b5-1 Interaction)

The dependent variable is the daily four-factor alpha (in basis points) estimated over the 126 trading days following an insider trade. Columns 1-3 consist of the sample of insider purchases. Columns 4-6 consist of the sample of insider sales. Control variables are included in all regressions and are the same set of controls as used in Table 4. Standard errors are two-way clustered at the firm and month levels. Statistical significance of 10%, 5%, and 1% are represented with *, **, and *** respectively.

	$\alpha_{4Factor}$					
	Purchases			*Sales*		
	(1)	(2)	(3)	(4)	(5)	(6)
Blackout Trade	-2.38**	-1.80*	-2.30**	0.59	0.62	0.58
	(-2.27)	(-1.71)	(-2.26)	(0.99)	(1.38)	(1.26)
Rule 10b5 Trade	-2.10	-3.34	-4.33	0.14	-0.17	-0.61
	(-0.72)	(-1.19)	(-1.14)	(0.34)	(-0.49)	(-1.59)
Blackout × Rule 10b5 Trade	3.46	1.17	1.43	-0.40	-0.44	-0.54
	(1.17)	(0.52)	(0.61)	(-0.56)	(-0.79)	(-0.94)
N	21,792	21,605	18,011	162,879	162,837	157,990
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Month FE	X	X	X	X	X	X
Firm FE		X			X	
Insider-Firm FE			X			X
R^2	0.078	0.43	0.59	0.037	0.27	0.41

Table 6 – Days to Form 4 Filing

The dependent variable is the number of days between the transaction date and the Form 4 filing date of an insider trade. Columns 1-3 consist of the sample of insider purchases. Columns 4-6 consist of the sample of insider sales. Variable definitions can be found in Tables 2 and A1. Standard errors are two-way clustered at the firm and month levels. Statistical significance of 10%, 5%, and 1% are represented with *, **, and *** respectively.

	Reporting Delay (Days)					
	Purchases			*Sales*		
	(1)	(2)	(3)	(4)	(5)	(6)
Blackout Trade	8.69***	4.74***	2.05*	0.052*	0.051**	0.036*
	(2.97)	(2.82)	(1.70)	(1.84)	(2.10)	(1.71)
Rule 10b5 Trade	-9.50**	-3.68	-6.97	-0.18***	-0.19***	-0.13***
	(-2.62)	(-0.97)	(-1.10)	(-6.03)	(-6.75)	(-4.14)
Log(Trade Value)	-4.54**	-1.90***	-0.66	0.003	0.003	0.021***
	(-2.60)	(-4.73)	(-1.59)	(0.34)	(0.45)	(2.64)
CEO	-24.11	-4.84	0.96	-0.053	-0.043	-0.076
	(-1.56)	(-1.61)	(0.22)	(-0.61)	(-0.62)	(-0.52)
CFO	-29.09*	-7.70***	5.59	0.008	-0.008	-0.36**
	(-1.68)	(-2.67)	(0.65)	(0.091)	(-0.11)	(-2.24)
Director	-23.20	-3.64	-1.72	0.10	0.11	-0.006
	(-1.41)	(-1.49)	(-0.77)	(1.18)	(1.62)	(-0.045)
Manager	-23.79	-4.76	1.12	0.065	0.043	-0.12
	(-1.40)	(-1.50)	(0.19)	(0.74)	(0.62)	(-0.82)
Board Chair	-30.19*	-6.31**	2.31	-0.13	-0.13	-0.036
	(-1.76)	(-2.25)	(0.55)	(-0.83)	(-1.28)	(-0.18)
Log(Mkt Cap)	3.22***	-1.17	-3.29	-0.034***	-0.008	-0.028
	(2.91)	(-0.63)	(-1.17)	(-2.68)	(-0.22)	(-0.71)
$Return_{[m-1]}$	10.52*	-1.47	-6.88	-0.087	-0.081	-0.065
	(1.89)	(-0.19)	(-0.72)	(-1.01)	(-1.15)	(-1.01)
$Return_{[m-12,m-2]}$	3.96*	2.40**	0.92	0.019	0.003	-0.021
	(1.69)	(2.07)	(0.99)	(0.92)	(0.14)	(-1.14)
Volatility	153.87*	-86.76	-123.63	1.52	0.42	0.54
	(1.78)	(-1.06)	(-1.07)	(1.65)	(0.50)	(0.64)
ILLIQ	180.12	53.24	53.66	0.25	1.07	0.76
	(1.53)	(1.17)	(0.86)	(0.23)	(0.81)	(0.74)
Book to Market	-4.36	-0.83	1.85	-0.083	-0.18**	-0.23***
	(-1.10)	(-0.39)	(0.71)	(-1.43)	(-2.15)	(-2.73)
ROA	116.59	-23.27	-11.94	-0.071	-0.65*	-0.93***
	(1.46)	(-1.26)	(-1.10)	(-0.19)	(-1.82)	(-2.70)
Leverage	13.38	4.94	12.06	-0.26***	-0.13	-0.22
	(0.99)	(0.47)	(0.66)	(-3.02)	(-1.02)	(-1.50)
Stock Comp	5.49	11.88	3.91	0.32	0.13	0.14
	(0.38)	(0.74)	(0.24)	(0.98)	(0.29)	(0.30)
% Inst. Ownership	-20.00	3.81	10.30	-0.084	0.13	-0.11
	(-1.21)	(0.64)	(1.19)	(-0.74)	(0.58)	(-0.44)
N	22,383	22,203	18,516	167,967	167,929	162,990
Month FE	X	X	X	X	X	X
Firm FE		X			X	
Insider-Firm FE			X			X
R^2	0.13	0.60	0.81	0.009	0.088	0.26

Table 7 – Days to Form 4 Filing (10b5-1 Interaction)

The dependent variable is the number of days between the transaction date and the Form 4 filing date of an insider trade. Columns 1-3 consist of the sample of insider purchases. Columns 4-6 consist of the sample of insider sales. Control variables are included in all regressions and are the same set of controls as used in Table 6. Standard errors are two-way clustered at the firm and month levels. Statistical significance of 10%, 5%, and 1% are represented with *, **, and *** respectively.

	Reporting Delay (Days)					
	Purchases			*Sales*		
	(1)	(2)	(3)	(4)	(5)	(6)
Blackout Trade	9.15***	4.84***	1.62	0.16***	0.14***	0.086**
	(2.89)	(2.66)	(1.25)	(3.05)	(3.45)	(2.41)
Rule 10b5 Trade	-7.01*	-3.22	-8.71	-0.13***	-0.14***	-0.11***
	(-1.81)	(-0.65)	(-1.04)	(-4.45)	(-5.04)	(-3.29)
Blackout × Rule 10b5 Trade	-4.91	-0.89	3.07	-0.17***	-0.14***	-0.071*
	(-0.99)	(-0.24)	(0.69)	(-3.29)	(-3.39)	(-1.93)
N	22,383	22,203	18,516	167,967	167,929	162,990
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Month FE	X	X	X	X	X	X
Firm FE		X			X	
Insider-Firm FE			X			X
R^2	0.13	0.60	0.81	0.009	0.088	0.26

Table 8 – JLT Blackout Trade Profitability

The dependent variable is the daily four-factor alpha (in basis points) estimated over the 126 trading days following an insider trade. Columns 1-3 consist of the sample of insider purchases. Columns 4-6 consist of the sample of insider sales. Variable definitions can be found in Tables 2 and A1. Standard errors are two-way clustered at the firm and month levels. Statistical significance of 10%, 5%, and 1% are represented with *, **, and *** respectively.

	$\alpha_{4Factor}$					
	Purchases			*Sales*		
	(1)	(2)	(3)	(4)	(5)	(6)
JLT Blackout Trade	-0.56	-0.74	-0.16	0.78***	0.60**	0.37
	(-0.56)	(-0.90)	(-0.22)	(2.68)	(2.45)	(1.54)
Rule 10b5 Trade	-0.85	-2.92	-3.87	-0.05	-0.35	-0.82**
	(-0.33)	(-1.33)	(-1.33)	(-0.12)	(-1.03)	(-2.31)
Log(Trade Value)	0.32	0.22	-0.052	0.15	-0.044	-0.18*
	(1.14)	(0.99)	(-0.18)	(1.09)	(-0.53)	(-1.82)
CEO	-0.86	-3.01	-7.47	0.013	0.94	0.93
	(-0.48)	(-1.54)	(-1.13)	(0.008)	(0.91)	(0.45)
CFO	4.11*	-1.00	-13.38*	0.012	0.86	3.03
	(1.89)	(-0.49)	(-1.98)	(0.007)	(0.81)	(1.24)
Director	2.07	-1.51	-6.13**	0.21	1.07	0.84
	(1.09)	(-0.79)	(-2.48)	(0.14)	(1.09)	(0.57)
Manager	1.84	-2.15	-7.58	0.17	0.86	0.78
	(0.91)	(-1.07)	(-0.96)	(0.11)	(0.86)	(0.39)
Board Chair	-1.20	-3.93	0.57	0.46	3.24	2.18
	(-0.40)	(-1.13)	(0.081)	(0.23)	(1.44)	(0.94)
Log(Mkt Cap)	-0.67**	-16.18***	-19.79***	0.024	-16.82***	-18.83***
	(-2.18)	(-7.42)	(-7.68)	(0.12)	(-14.12)	(-14.91)
$Return_{[m-1]}$	1.95	0.046	1.84	1.13	2.75	1.31
	(0.54)	(0.014)	(0.52)	(0.56)	(1.35)	(0.65)
$Return_{[m-12,m-2]}$	-0.37	2.18	1.74	1.92*	2.76**	2.23*
	(-0.38)	(1.50)	(1.02)	(1.81)	(2.43)	(1.93)
Volatility	137.82***	32.10	41.14	76.78***	2.28	-7.79
	(3.05)	(0.81)	(1.03)	(3.03)	(0.099)	(-0.34)
ILLIQ	47.58**	53.16**	45.06*	-11.73	51.41	59.72**
	(2.56)	(2.44)	(1.82)	(-0.41)	(1.65)	(2.14)
Book to Market	1.98	5.68*	5.97*	2.33**	-3.16	1.05
	(1.43)	(1.87)	(1.71)	(2.10)	(-1.12)	(0.34)
ROA	-36.74**	-21.33	-23.09	-20.95**	-24.99*	-28.42**
	(-2.56)	(-1.30)	(-1.10)	(-2.02)	(-1.96)	(-2.12)
Leverage	1.21	-6.47	-13.22	2.83	0.19	2.12
	(0.39)	(-0.85)	(-1.33)	(1.64)	(0.048)	(0.48)
Stock Comp	-0.65	-46.88*	-19.80	1.54	-29.39**	-26.15*
	(-0.049)	(-1.82)	(-0.68)	(0.23)	(-2.21)	(-1.95)
% Inst. Ownership	1.27	-14.30**	-23.51***	-6.22***	-22.09***	-27.99***
	(0.49)	(-2.12)	(-2.93)	(-3.13)	(-3.33)	(-4.35)
N	21,792	21,605	18,011	162,879	162,837	157,990
Month FE	X	X	X	X	X	X
Firm FE		X			X	
Insider-Firm FE			X			X
R^2	0.077	0.43	0.58	0.038	0.27	0.41

Table 9 – JLT Days to Form 4 Filing

The dependent variable is the number of days between the transaction date and the Form 4 filing date of an insider trade. Columns 1-3 consist of the sample of insider purchases. Columns 4-6 consist of the sample of insider sales. Variable definitions can be found in Tables 2 and A1. Standard errors are two-way clustered at the firm and month levels. Statistical significance of 10%, 5%, and 1% are represented with *, **, and *** respectively.

	Reporting Delay (Days)					
	Purchases			*Sales*		
	(1)	(2)	(3)	(4)	(5)	(6)
JLT Blackout Trade	7.52***	1.96	0.17	0.035	0.018	0.00
	(3.22)	(1.21)	(0.11)	(1.40)	(0.85)	(-0.009)
Rule 10b5 Trade	-8.82**	-3.10	-6.61	-0.17***	-0.18***	-0.12***
	(-2.46)	(-0.83)	(-1.05)	(-5.79)	(-6.49)	(-3.93)
Log(Trade Value)	-4.55**	-1.91***	-0.66	0.003	0.003	0.02**
	(-2.59)	(-4.74)	(-1.59)	(0.32)	(0.41)	(2.59)
CEO	-24.86	-5.53*	0.88	-0.056	-0.046	-0.078
	(-1.58)	(-1.82)	(0.21)	(-0.65)	(-0.66)	(-0.54)
CFO	-29.90*	-8.37***	5.50	0.005	-0.011	-0.37**
	(-1.71)	(-2.87)	(0.64)	(0.061)	(-0.16)	(-2.25)
Director	-24.16	-4.36*	-1.77	0.097	0.10	-0.008
	(-1.45)	(-1.77)	(-0.79)	(1.14)	(1.57)	(-0.062)
Manager	-24.70	-5.43*	0.99	0.062	0.039	-0.12
	(-1.43)	(-1.70)	(0.17)	(0.71)	(0.57)	(-0.83)
Board Chair	-30.85*	-6.86**	2.52	-0.13	-0.13	-0.039
	(-1.78)	(-2.45)	(0.61)	(-0.81)	(-1.32)	(-0.19)
Log(Mkt Cap)	3.11***	-1.24	-3.31	-0.035***	-0.008	-0.028
	(2.84)	(-0.67)	(-1.19)	(-2.73)	(-0.22)	(-0.71)
$Return_{[m-1]}$	9.98*	-1.61	-6.89	-0.088	-0.081	-0.066
	(1.80)	(-0.21)	(-0.73)	(-1.02)	(-1.15)	(-1.02)
$Return_{[m-12,m-2]}$	4.00*	2.46**	0.94	0.019	0.003	-0.021
	(1.70)	(2.12)	(1.02)	(0.92)	(0.14)	(-1.14)
Volatility	167.55*	-85.23	-125.68	1.59*	0.40	0.48
	(1.93)	(-1.01)	(-1.06)	(1.71)	(0.47)	(0.57)
ILLIQ	178.90	52.59	53.30	0.26	1.09	0.76
	(1.52)	(1.16)	(0.86)	(0.24)	(0.82)	(0.74)
Book to Market	-4.52	-0.88	1.85	-0.086	-0.18**	-0.23***
	(-1.14)	(-0.41)	(0.71)	(-1.48)	(-2.15)	(-2.74)
ROA	115.49	-23.94	-12.49	-0.075	-0.66*	-0.94***
	(1.45)	(-1.30)	(-1.15)	(-0.20)	(-1.84)	(-2.71)
Leverage	14.38	4.99	11.93	-0.26***	-0.13	-0.21
	(1.06)	(0.48)	(0.66)	(-3.01)	(-1.01)	(-1.49)
Stock Comp	5.53	12.22	3.73	0.32	0.12	0.13
	(0.38)	(0.77)	(0.22)	(0.99)	(0.28)	(0.28)
% Inst. Ownership	-19.83	3.70	10.31	-0.081	0.13	-0.11
	(-1.20)	(0.62)	(1.19)	(-0.72)	(0.58)	(-0.44)
N	22,383	22,203	18,516	167,967	167,929	162,990
Month FE	X	X	X	X	X	X
Firm FE		X			X	
Insider-Firm FE			X			X
R^2	0.13	0.60	0.81	0.009	0.088	0.26

Table 10 – Blackout Trade Profitability (Dollar Alpha)

The dependent variable is the daily four-factor alpha multiplied by the dollar value of the trade. Columns 1-3 consist of the sample of insider purchases. Columns 4-6 consist of the sample of insider sales. Variable definitions can be found in Tables 2 and A1. Standard errors are two-way clustered at the firm and month levels. Statistical significance of 10%, 5%, and 1% are represented with *, **, and *** respectively.

	α_{Dollar}					
	Purchases			*Sales*		
	(1)	(2)	(3)	(4)	(5)	(6)
Blackout Trade	-989.91**	-1,093**	-1,168*	-178.48	6.74	20.12
	(-2.12)	(-2.22)	(-1.90)	(-0.87)	(0.044)	(0.13)
Rule 10b5 Trade	-293.74	-196.40	-1,269	249.67	69.70	-1.06
	(-0.17)	(-0.33)	(-1.47)	(1.18)	(0.51)	(-0.008)
Log(Trade Value)	332.97	308.01*	239.64	331.33**	238.35*	306.71**
	(1.57)	(1.76)	(1.03)	(2.23)	(1.67)	(2.03)
CEO	-1,457*	-895.37	-4,213**	-2,835**	-1,525*	2.95
	(-1.67)	(-0.96)	(-2.41)	(-2.32)	(-1.74)	(0.002)
CFO	-829.49	-809.20	-4,222**	-1,978*	-933.13	155.35
	(-1.32)	(-0.87)	(-2.59)	(-1.91)	(-1.21)	(0.091)
Director	-742.73	-656.73	-2,238*	-1,675*	-583.20	-12.02
	(-1.16)	(-0.80)	(-1.90)	(-1.74)	(-0.79)	(-0.006)
Manager	-808.19	-419.59	-4,272**	-1,942*	-863.63	274.55
	(-1.18)	(-0.45)	(-2.54)	(-1.88)	(-1.11)	(0.16)
Board Chair	-951.73	-724.15	-1,151	-1,869	-293.31	-129.36
	(-1.19)	(-0.78)	(-0.68)	(-1.55)	(-0.31)	(-0.07)
Log(Mkt Cap)	-86.59	-3,119***	-4,503***	-47.67	-2,678***	-3,059***
	(-0.98)	(-3.81)	(-3.67)	(-0.33)	(-6.78)	(-6.66)
$Return_{[m-1]}$	2,041	2,269	4,504	919.74	1,254*	1,390*
	(1.01)	(1.09)	(1.60)	(1.25)	(1.78)	(1.88)
$Return_{[m-12,m-2]}$	-408.06	690.64	689.80	554.90	750.38**	917.63**
	(-0.74)	(1.32)	(1.11)	(1.40)	(2.21)	(2.13)
Volatility	-14,527	-15,473	-11,277	1,184	-5,952	-5,066
	(-1.11)	(-0.85)	(-0.47)	(0.14)	(-0.74)	(-0.57)
ILLIQ	3,592*	-4,046	-7,364*	-6,307	-12,347***	-10,746***
	(1.77)	(-1.29)	(-1.87)	(-1.29)	(-3.30)	(-2.91)
Book to Market	-204.36	-1,018**	-1,701**	169.68	-1,004	-1,380*
	(-0.61)	(-2.14)	(-2.59)	(0.46)	(-1.23)	(-1.93)
ROA	2,527	3,705	9,591	-4,844	-1,208	141.02
	(0.52)	(0.70)	(1.44)	(-1.31)	(-0.36)	(0.037)
Leverage	-590.87	342.44	-532.79	2,213***	2,963**	3,523*
	(-0.73)	(0.18)	(-0.18)	(2.76)	(2.00)	(1.82)
Stock Comp	2,407	27,811	52,474*	1,481	-1,692	-1,436
	(0.53)	(1.43)	(1.75)	(0.43)	(-0.32)	(-0.26)
% Inst. Ownership	406.94	-450.45	-355.23	-1,958**	-836.28	-1,551
	(0.48)	(-0.27)	(-0.13)	(-2.16)	(-0.66)	(-1.02)
N	21,792	21,605	18,011	162,879	162,837	157,990
Month FE	X	X	X	X	X	X
Firm FE		X			X	
Insider-Firm FE			X			X
R^2	0.035	0.26	0.43	0.018	0.11	0.26

Table 11 – Blackout Trade Profitability (Dollar Alpha, 10b5-1 Interaction)

The dependent variable is the daily four-factor alpha multiplied by the dollar value of the trade. Columns 1-3 consist of the sample of insider purchases. Columns 4-6 consist of the sample of insider sales. Control variables are included in all regressions and are the same set of controls as used in Table 4. Standard errors are two-way clustered at the firm and month levels. Statistical significance of 10%, 5%, and 1% are represented with *, **, and *** respectively.

	α_{Dollar}					
	Purchases			*Sales*		
	(1)	(2)	(3)	(4)	(5)	(6)
Blackout Trade	-788.37**	-894.34**	-843.48*	27.29	271.58	461.79**
	(-2.36)	(-2.18)	(-1.76)	(0.083)	(1.11)	(2.49)
Rule 10b5 Trade	806.13	713.28	52.09	345.68	191.69	214.57
	(0.94)	(0.45)	(0.027)	(1.50)	(1.51)	(1.54)
Blackout × Rule 10b5 Trade	-2,150	-1,734	-2,306	-318.82	-396.46	-632.79***
	(-0.88)	(-0.72)	(-0.94)	(-0.88)	(-1.38)	(-2.96)
N	21,792	21,605	18,011	162,879	162,837	157,990
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Month FE	X	X	X	X	X	X
Firm FE		X			X	
Insider-Firm FE			X			X
R^2	0.035	0.26	0.44	0.018	0.11	0.26

Table 12 – Blackout Trade Profitability (Adoption/Amendment Date Sample)

The sample consists of all firms with explicit ITP adoption or amendment dates. The dependent variable is the daily four-factor alpha (in basis points) estimated over the 126 trading days following an insider trade. Columns 1-3 consist of the sample of insider purchases. Columns 4-6 consist of the sample of insider sales. Variable definitions can be found in Tables 2 and A1. Standard errors are two-way clustered at the firm and month levels. Statistical significance of 10%, 5%, and 1% are represented with *, **, and *** respectively.

	$\alpha_{4Factor}$					
	Purchases			*Sales*		
	(1)	(2)	(3)	(4)	(5)	(6)
Blackout Trade	-2.06**	-1.66*	-2.10**	0.34	0.32	0.20
	(-2.10)	(-1.71)	(-2.17)	(1.14)	(1.48)	(0.98)
Rule 10b5 Trade	-0.33	-2.72	-3.51	0.017	-0.31	-0.80**
	(-0.13)	(-1.23)	(-1.14)	(0.041)	(-0.92)	(-2.23)
Log(Trade Value)	0.30	0.22	-0.051	0.15	-0.046	-0.19*
	(1.07)	(0.98)	(-0.18)	(1.06)	(-0.56)	(-1.84)
CEO	-1.33	-3.25*	-7.60	-0.024	0.92	0.91
	(-0.72)	(-1.67)	(-1.15)	(-0.015)	(0.89)	(0.45)
CFO	3.58	-1.23	-13.53**	-0.04	0.84	3.01
	(1.61)	(-0.60)	(-2.00)	(-0.024)	(0.79)	(1.23)
Director	1.56	-1.75	-6.18**	0.16	1.05	0.82
	(0.80)	(-0.93)	(-2.51)	(0.11)	(1.07)	(0.55)
Manager	1.31	-2.37	-7.78	0.12	0.84	0.76
	(0.63)	(-1.19)	(-0.98)	(0.075)	(0.83)	(0.38)
Board Chair	-1.64	-4.11	0.78	0.39	3.22	2.16
	(-0.55)	(-1.18)	(0.11)	(0.20)	(1.43)	(0.94)
Log(Mkt Cap)	-0.69**	-16.20***	-19.81***	0.023	-16.82***	-18.84***
	(-2.25)	(-7.43)	(-7.67)	(0.11)	(-14.12)	(-14.91)
$Return_{[m-1]}$	1.88	0.00	1.83	1.13	2.75	1.31
	(0.52)	(0.00)	(0.52)	(0.56)	(1.35)	(0.65)
$Return_{[m-12,m-2]}$	-0.36	2.20	1.77	1.93*	2.76**	2.23*
	(-0.37)	(1.52)	(1.04)	(1.82)	(2.44)	(1.93)
Volatility	138.28***	32.83	39.00	75.53***	0.91	-8.65
	(3.02)	(0.83)	(0.99)	(2.99)	(0.039)	(-0.38)
ILLIQ	47.13**	52.93**	44.72*	-11.78	51.37	59.64**
	(2.53)	(2.41)	(1.79)	(-0.41)	(1.65)	(2.14)
Book to Market	1.94	5.67*	5.97*	2.34**	-3.16	1.05
	(1.39)	(1.87)	(1.71)	(2.11)	(-1.12)	(0.33)
ROA	-37.50**	-21.60	-23.66	-21.15**	-25.01*	-28.44**
	(-2.63)	(-1.31)	(-1.13)	(-2.04)	(-1.96)	(-2.12)
Leverage	1.36	-6.45	-13.33	2.81	0.19	2.11
	(0.43)	(-0.84)	(-1.34)	(1.63)	(0.048)	(0.48)
Stock Comp	-0.58	-46.49*	-19.67	1.57	-29.41**	-26.18*
	(-0.045)	(-1.80)	(-0.68)	(0.23)	(-2.21)	(-1.95)
% Inst. Ownership	1.24	-14.35**	-23.47***	-6.25***	-22.08***	-27.98***
	(0.48)	(-2.12)	(-2.92)	(-3.15)	(-3.33)	(-4.35)
N	21,792	21,605	18,011	162,879	162,837	157,990
Month FE	X	X	X	X	X	X
Firm FE		X			X	
Insider-Firm FE			X			X
R^2	0.078	0.43	0.59	0.037	0.27	0.41

Table 13 – Blackout Trade Profitability (Industry FE)

The dependent variable is the daily four-factor alpha (in basis points) estimated over the 126 trading days following an insider trade. Columns 1-3 consist of the sample of insider purchases. Columns 4-6 consist of the sample of insider sales. Variable definitions can be found in Tables 2 and A1. Standard errors are two-way clustered at the firm and month levels. Statistical significance of 10%, 5%, and 1% are represented with *, **, and *** respectively.

	$\alpha_{4Factor}$			
	Purchases		*Sales*	
	(1)	(2)	(3)	(4)
Blackout Trade	-2.18**	-2.22**	0.37	0.41
	(-2.10)	(-2.04)	(0.94)	(1.06)
Rule 10b5 Trade	-0.53	-0.77	-0.007	-0.084
	(-0.22)	(-0.35)	(-0.018)	(-0.20)
Log(Trade Value)	0.34	0.33	0.13	0.11
	(1.22)	(1.28)	(0.94)	(0.84)
CEO	-1.33	-1.23	-0.095	0.078
	(-0.77)	(-0.70)	(-0.061)	(0.05)
CFO	3.43*	2.91	-0.071	0.088
	(1.68)	(1.47)	(-0.044)	(0.054)
Director	1.53	1.43	0.079	0.23
	(0.85)	(0.81)	(0.052)	(0.15)
Manager	1.65	1.48	0.066	0.21
	(0.85)	(0.79)	(0.042)	(0.13)
Board Chair	-2.25	-2.54	0.44	0.46
	(-0.72)	(-0.82)	(0.22)	(0.22)
Log(Mkt Cap)	-0.58*	-0.64**	0.059	0.063
	(-1.97)	(-2.28)	(0.27)	(0.29)
$Return_{[m-1]}$	1.84	2.22	1.12	1.18
	(0.51)	(0.64)	(0.56)	(0.59)
$Return_{[m-12,m-2]}$	-0.18	-0.009	1.89*	1.89*
	(-0.19)	(-0.01)	(1.79)	(1.79)
Volatility	126.13***	117.33***	75.50***	73.39***
	(2.80)	(2.64)	(2.96)	(2.91)
ILLIQ	42.21**	41.79**	-12.59	-12.72
	(2.32)	(2.40)	(-0.44)	(-0.45)
Book to Market	3.02**	3.05**	2.46**	2.48**
	(2.10)	(2.17)	(2.05)	(2.07)
ROA	-26.75**	-26.84*	-20.03**	-20.19**
	(-2.06)	(-1.98)	(-2.02)	(-2.05)
Leverage	1.65	1.93	2.86*	2.91*
	(0.53)	(0.63)	(1.68)	(1.73)
Stock Comp	-7.96	-7.75	1.72	1.77
	(-0.62)	(-0.62)	(0.25)	(0.26)
% Inst. Ownership	0.67	1.23	-6.53***	-6.59***
	(0.26)	(0.50)	(-3.25)	(-3.30)
N	21,791	21,634	162,874	162,830
Month FE	X	X	X	X
Industry FE	X		X	
Days to Earnings FE	X		X	
Industry × Days to Earnings FE		X		X
R^2	0.093	0.15	0.04	0.052

Figure A1

Restricted Trading Periods and Trading Windows

A restricted trading period is a specified period of time during which designated Apple personnel, and their covered family members and entities, may not buy or sell Apple securities. If you are subject to trading restrictions, you will be notified by Apple's Corporate Legal team.

A trading window (sometimes referred to as an "open trading window") is a specified period of time during which Apple personnel may buy or sell Apple securities, so long as the individual is not aware of material nonpublic information. Complying with restricted trading periods and trading windows may protect you and Apple from regulatory investigations or insider trading allegations. However, even if you are not subject to restricted trading periods or no such period is in effect, you must not trade in Apple securities if you are aware of material nonpublic information about Apple.

The regularly scheduled restricted trading period and trading window for each quarter is indicated below.

Fiscal Quarter	Trading Window Closed and Trading Restrictions Begin	Trading Restrictions End and Trading Window Opens
1st	December 1	24 hours after public disclosure of first-quarter results (typically early February)
2nd	March 1	24 hours after public disclosure of second-quarter results (typically early May)
3rd	June 1	24 hours after public disclosure of third-quarter results (typically early August)
4th	September 1	24 hours after public disclosure of year-end results (typically early November)

Figure A2

The Company's Trading Window

The Company has determined that all executive officers, directors, and those other persons identified on Attachment 1 (as may be amended from time to time by the Compliance Officer), shall be prohibited from buying, selling or otherwise effecting transactions in any stock or other securities of the Company or derivative securities thereof EXCEPT during the following trading window:

> Beginning at the open of market on the trading day following the date of public disclosure of the Company's financial results for a preceding calendar quarter or year and ending at the close of market on the 10th day of the second calendar month of the current calendar quarter (the "Open Window").

Figure A3

BLACKOUT POLICY

All covered persons listed above are subject to the following blackout procedures.

Quarterly Blackout Periods.

The Company's announcement of its quarterly financial results almost always has the potential to have a material effect on the market for NIKE securities. Therefore, to avoid even the appearance of trading on the basis of material nonpublic information, you may not trade in NIKE securities during the period beginning on the fifteenth day of the last month of each fiscal quarter and ending after the first full trading day following the public release of the Company's earnings for that quarter.

Figure A4

When You May and May Not Trade

1. When You May Trade (open trading window). If you are not in possession of material non-public information, you may buy or sell Walmart Securities on the day following a quarterly earnings release until the next to last day of the second month of each fiscal quarter, unless the trading window is closed for any other reason. **If possible, you should trade shortly after the trading window opens, to minimize the possibility that other material nonpublic information may arise while the trading window would otherwise be open**.

2. When You May Not Trade (closed trading window). At all other times, the trading window will generally be closed, and you may not trade in Walmart Securities. The prohibition on the buying or selling of Walmart Securities is not limited to open market purchases or sales of Walmart Securities but also includes, for example, any trading that occurs as a result of moving out of Walmart Securities in your 401(k) account, moving all or a portion of your vested profit sharing account out of Walmart Securities, or establishing initially, increasing or decreasing the amount of your bi-weekly contribution to the Associate Stock Purchase Plan.

3. Other Times When You May Not Trade. There may be other times when you should not trade because you are in possession or may be deemed to be in possession of material non-public information. Additionally, the Office of the Corporate Secretary may notify you that you are prohibited from trading in Walmart Securities, despite the schedule outlined above. If you have any questions regarding whether you possess material non-public information, you should not take it upon yourself to make that determination. You should contact the Senior Vice President, Office of the Corporate Secretary, at ocscorpgov@walmartlegal.com.

Table A1 – Variable Definitions	
Variable Name	**Definition**
$\%\ Inst.\ Ownership$	Total shares held by institutional investors as reported in 13F filings, divided by total shares outstanding from CRSP. Capped at 100%. Winsorized at the 1% and 99% level of the sample distribution.
$Blackout\ Trade$	Indicator variable equal to one if the insider trade occurs within the blackout window designated in the firm's insider trading policy filed with the SEC, and zero otherwise.
$Board\ Chair$	Indicator variable equal to one if the insider holds the role of Chairman of the Board on the trade date and is not also classified as CEO or CFO, and zero otherwise. Role codes are from the LSEG insider trading database. Position indicators are hierarchically exclusive. See Table A2 for role definitions.
$Book\ to\ Market$	Book value of common equity (Compustat ceqq) divided by market capitalization from CRSP in the month prior to the trade. Set to missing when book equity is negative. Winsorized at the 1% and 99% level of the sample distribution.
CEO	Indicator variable equal to one if the insider is the Chief Executive Officer on the trade date, and zero otherwise. Role codes are from the LSEG insider trading database. Position indicators are hierarchically exclusive. See Table A2 for role definitions.
CFO	Indicator variable equal to one if the insider is the Chief Financial Officer on the trade date and is not also classified as CEO, and zero otherwise. Role codes are from the LSEG insider trading database. See Table A2 for role definitions.
$\alpha_{4Factor}$	Average daily abnormal return estimated from a four-factor model (market, size, value, and momentum) over the 126 trading days following the trade date. Reported in basis points. Winsorized at the 1% and 99% level of the sample distribution.
α_{Dollar}	Average daily abnormal dollar return over the 126 trading days following the trade date, computed as the daily four-factor alpha multiplied by the trade value in dollars. The underlying components (daily alpha and trade value) are each winsorized at the 1% and 99% level of the sample distribution.
$Director$	Indicator variable equal to one if the insider is a member of the board of directors and is not also classified as CEO, CFO, Board Chair, or Manager, and zero otherwise. Role codes are from the LSEG insider trading database. See Table A2 for role definitions.
$ILLIQ$	Amihud (2002) illiquidity measure in the calendar month prior to the trade, calculated as the mean of the daily absolute return divided by dollar trading volume, multiplied by 10^6. Winsorized at the 1% and 99% level of the sample distribution.
JLT Blackout Trade	Indicator variable equal to one if the insider trade occurs within one day after the most recent earnings announcement or within 46 days before the next earnings announcement, following the restricted window definition of Jagolinzer, Larcker, and Taylor (2011), and zero otherwise.
$Leverage$	Total debt divided by total assets (Compustat atq), where total debt is the sum of short-term debt (Compustat dlcq) and long-term debt (Compustat dlttq) for the most recently reported fiscal quarter. Missing debt values are set to zero. Winsorized at the 1% and 99% level of the sample distribution.

Table A1 – Variable Definitions	
Variable Name	**Definition**
$Log(Mkt\ Cap)$	Natural logarithm of the firm's market capitalization in the month prior to the trade, measured in millions of dollars from CRSP. The underlying value is winsorized at the 1% and 99% level prior to taking the logarithm.
$Log(Trade\ Value)$	Natural logarithm of the absolute net value of all transactions by the insider at the firm on the trade date, where net value is the sum of signed shares traded multiplied by the transaction price. The underlying value is winsorized at the 1% and 99% level prior to taking the logarithm.
$Manager$	Indicator variable equal to one if the insider holds a senior management role (e.g., President, EVP, SVP, VP, or other officer) and is not also classified as CEO, CFO, or Board Chair, and zero otherwise. Role codes are from the LSEG insider trading database. See Table A2 for role definitions.
$Purchase$	Indicator variable equal to one if the net value of all transactions by the insider at the firm on the trade date is positive, indicating a net open-market purchase, and zero otherwise.
$Return_{[m-1]}$	Cumulative stock return in the calendar month immediately preceding the trade month from CRSP. Winsorized at the 1% and 99% level of the sample distribution.
$Return_{[m-12,m-2]}$	Cumulative stock return from 12 months to 2 months prior to the trade month, measured as the compounded product of monthly returns over that 11-month window from CRSP. Winsorized at the 1% and 99% level of the sample distribution.
$Reporting\ Delay\ (Days)$	Number of calendar days between the insider's trade date and the date the Form 4 disclosure was filed with the SEC. Winsorized at the 99th percentile of the sample distribution.
ROA	Return on assets, calculated as quarterly net income (Compustat ibq) divided by total assets (Compustat atq) for the most recently reported fiscal quarter. Winsorized at the 1% and 99% level of the sample distribution.
$Rule\ 10b5\ Trade$	Indicator variable equal to one if any transaction by the insider at the firm on the trade date is flagged as executed pursuant to a Rule 10b5-1 trading plan in the LSEG insider trading database, and zero otherwise.
$Stock\ Comp$	Stock-based compensation (Compustat stkcoq) divided by total operating expenses (Compustat xoprq) for the most recently reported fiscal quarter. Firms with no reported stock-based compensation are assigned a value of zero. Set to missing when operating expenses are non-positive. Winsorized at the 1% and 99% level of the sample distribution.
$Trade\ After\ Adoption$	Indicator variable equal to one if the insider trade occurs on or after the date the firm adopted its insider trading policy, and zero otherwise.
$Trade\ After\ Amendment$	Indicator variable equal to one if the insider trade occurs on or after the date the firm most recently amended its insider trading policy, and zero otherwise.
$Volatility$	Standard deviation of daily stock returns in the calendar month prior to the trade month from CRSP. Winsorized at the 1% and 99% level of the sample distribution.

Table A2 – Insider Role Definitions

This table provides information on the classification of insiders into director and manager roles. Insiders with the following role codes from LSEG are classified as directors or managers. Insiders that fill multiple roles are signed to a distinct role with the following hierarchy: CEO, CFO, Board Chair, Manager, Director.

Directors		
	D	Director
	DO	Director and Beneficial Owner of more than 10% of a Class of Security
	H	Officer, Director, and Beneficial Owner
	OD	Officer and Director
	VC	Vice Chair
Managers		
	AV	Assistant Vice President
	CI	Chief Investment Officer
	CO	Chief Operating Officer
	CT	Chief Technology Officer
	EVP	Executive Vice President
	O	Officer
	OB	Officer and Beneficial Owner of more than 10% of a Class of Security
	OP	Officer of Parent Company
	OS	Officer of Subsidiary Company
	OT	Officer and Treasurer
	OX	Divisional Officer
	P	President
	S	Secretary
	SVP	Senior Vice President
	VP	Vice President

Table A3 – Summary Statistics by Blackout vs. Open Window Trades

This table presents summary statistics for our insider trading sample split by whether the trade occurs in a blackout window or not. All continuous firm and return variables are winsorized at the 1% and 99% levels of their sample distributions. $Purchase$ is an indicator variable equal to one if the insider is a net purchaser that trading day and 0 if they are a net seller. $Rule\ 10b5\ Trade$ is an indicator equal to one if the trade is part of a preplanned trading program. $Trade\ Value$ is the dollar value of the trade. CEO, CFO, $Board\ Chair$, $Manager$, and $Director$ are indicator variable for the insider's position from their form 4. Definitions of each variable can be found in Table A2 of the appendix A. $\alpha_{4Factor}$ is the daily alpha in basis points from the 4-factor model estimated over the subsequent six months after the trade. $Mkt\ Cap$ is the firm's market capitalization in millions. $Return_{[m-1]}$ and $Return_{[m-12,m-2]}$ are the stock returns over the past year, split between the prior month and the prevailing 11 months respectively. $Volatility$ is the standard deviation of the prior month's stock returns. $ILLIQ$ is the Amihud (2002) measure of illiquidity. $\%\ Inst\ Ownership$ is the percent of shares outstanding owned by institutions. $Stock\ Comp$ is stock-based compensation as a percent of total operating expense. ROA is income before extraordinary items scaled by total assets. $Leverage$ is total debt scaled by assets. $Book\ to\ Market$ is book value of equity scaled by market capitalization.

	Open Window		Blackout	
	Mean	SD	Mean	SD
$Purchase$	0.15	0.36	0.073	0.26
$Rule\ 10b5\ Trade$	0.32	0.47	0.72	0.45
$Trade\ Value$	1,945,886	5,563,003	1,837,694	4,974,572
CEO	0.15	0.35	0.20	0.40
CFO	0.082	0.27	0.093	0.29
$Board\ Chair$	0.0067	0.081	0.014	0.12
$Manager$	0.41	0.49	0.39	0.49
$Director$	0.29	0.45	0.20	0.40
$\alpha_{4Factor}$	2.06	21.69	2.15	24.76
$Mkt\ Cap$	27,579	84,087	26,180	87,819
$Return_{[m-1]}$	0.031	0.14	0.028	0.14
$Return_{[m-12,m-2]}$	0.24	0.60	0.33	0.73
$Volatility$	0.027	0.016	0.03	0.017
$ILLIQ$	0.0073	0.027	0.007	0.026
$\%\ Inst.Ownership$	0.77	0.20	0.78	0.20
$Stock\ Comp$	0.059	0.071	0.079	0.075
ROA	0.015	0.025	0.023	0.029
$Leverage$	0.0019	0.041	-0.0051	0.047
$Book\ to\ Market$	0.27	0.22	0.26	0.24
$Purchase$	0.39	0.37	0.31	0.33

Appendix B. Data Collection Details

Worked Examples

The three examples below illustrate how heterogeneous policy language maps to the common schema. Company names are anonymized.

Example 1 – Standard earnings-anchored blackout (Company A)*

Source text (excerpt from Exhibit 19): "A regular blackout period begins on the date that is fourteen calendar days prior to the end of each fiscal quarter and continues until the second full trading day following the public release of the Company's quarterly or annual earnings."

Extracted rule (Q1, identical for Q2–Q4):

Field	Value
policy_type	EXPLICIT_BLACKOUT
blackout_start_rule.kind	OFFSET_RULE
blackout_start_rule.anchor	QUARTER_END
blackout_start_rule.offset	−14
blackout_start_rule.unit	CALENDAR_DAYS
blackout_end_rule.kind	OFFSET_RULE
blackout_end_rule.anchor	EARNINGS_ANNOUNCEMENT
blackout_end_rule.offset	+2
blackout_end_rule.unit	TRADING_DAYS

Example 2 – Fixed-calendar-date blackout (Company B).

Source text: "[Company B] has four quarterly Blackout Periods which commence, respectively, when the New York Stock Exchange closes on March 1, June 1, September 1 and December 1 of each year. If any of the preceding dates fall on a weekend or a NYSE holiday, then the applicable

* This is the modal policy in our sample.

Blackout Period shall commence when the NYSE closes on the last trading day prior to such weekend or NYSE holiday. The Blackout Period ends at the close of business on the second full trading day after the public release of the Company's quarterly earnings results."

Extracted rule (Q4 shown; Q1–Q3 analogous with months 3, 6, 9):

Field	**Value**
policy_type	EXPLICIT_BLACKOUT
blackout_start_rule.kind	SPECIAL_RULE
blackout_start_rule.special_date_logic.type	FIXED_MONTH_DAY
blackout_start_rule.special_date_logic.sl_month	12
blackout_start_rule.special_date_logic.sl_day_of_month	1
blackout_start_rule.adjust_to_trading_day	PREVIOUS_TRADING_DAY
blackout_end_rule.kind	OFFSET_RULE
blackout_end_rule.anchor	EARNINGS_ANNOUNCEMENT
blackout_end_rule.offset	+2
blackout_end_rule.unit	TRADING_DAYS

This example illustrates two complications the schema must handle: a special-rule (FIXED_MONTH_DAY) encoding for a fixed calendar anchor that does not derive from any event date, and a weekend/holiday adjustment specified by the policy itself.

Example 3 — Trading-window framing (Company C).

Source text: "A window period generally begins with the trading day on the New York Stock Exchange that is at least one full trading day after the day on which the Corporation makes a public news release of its quarterly or annual earnings for the prior fiscal quarter or fiscal year, as the case may be ('Window Period'). That same trading window closes fourteen calendar days prior to the end of the then-current fiscal quarter."

Extracted rule (Q1, identical for Q2–Q4):

Field	Value
policy_type	EXPLICIT_TRADING_WINDOW
open_window_start_rule.kind	OFFSET_RULE
open_window_start_rule.anchor	PRIOR_QUARTER_EARNINGS_ANNOUNCEMENT
open_window_start_rule.offset	+1
open_window_start_rule.unit	TRADING_DAYS
open_window_end_rule.kind	OFFSET_RULE
open_window_end_rule.anchor	QUARTER_END
open_window_end_rule.offset	−14
open_window_end_rule.unit	CALENDAR_DAYS

Note that Company C frames its restriction as a permitted trading window rather than as a prohibited blackout, and that the start of the window references the prior quarter's earnings event (the announcement that, viewed from the current quarter, opens the window) while the end references the current quarter's calendar quarter end. The downstream date calculator inverts the trading window to recover the equivalent blackout interval, ensuring that all firms are compared on a common basis regardless of whether their policy was originally written in blackout or window framing.