Watching the Watchdogs: Tracking SEC Inquiries using Geolocation Data

Abstract

The Securities and Exchange Commission's investigative practices have been challenging to examine due to limited transparency. Using de-identified smartphone geolocation data, we track SEC-associated devices that visit firm headquarters. While confirming that SEC oversight targets larger firms with enforcement histories and clusters by industry, we document two novel patterns: most visits occur outside formal investigations and monitoring occasionally crosses regional boundaries. These visits predict significant negative stock returns, even absent subsequent enforcement actions. Though insiders generally reduce selling around visits, those who do trade avoid substantial losses. Our findings reveal that important regulatory information flows occur before formal proceedings begin.

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1. Introduction

The Securities and Exchange Commission (SEC) plays a crucial role in maintaining financial market integrity through enforcement of securities laws and deterrence of misconduct. While extensive research has examined the outcomes of SEC regulatory actions (e.g. Karpoff et al., 2017), studying only disclosed investigations that lead to punishments or finalized enforcement actions naturally limits our understanding of regulatory monitoring - similar to how Wald's (1943) analysis of World War II aircraft damage patterns demonstrated how such selection can lead to incorrect inferences. Recent advancements have been made by obtaining dates of closed formal investigations through Freedom of Information Act requests (Blackburne et al., 2021; Blackburne and Quinn, 2023; Holzman et al., 2024), but relying solely on official dates from completed SEC actions still leaves many initial and ongoing SEC-firm interactions unobserved. According to a 2011 Office of Inspector General report, nearly half of SEC's Matters Under Inquiry (MUIs) conclude without escalating to a formal investigation and leave no public record. As Rajgopal and White (2017) note, "even for those cases that are made public eventually, identifying the trigger event and the date on which such event was publicly known is difficult."

This paper addresses these challenges by leveraging novel data on SEC interactions with firms. By analyzing both the timing of these interactions and insider trading behavior around them, we document previously unobservable stages of the investigative process and test whether important information may be transferred well before the official dates studied in prior literature, thereby offering a more comprehensive understanding of regulatory oversight.

To study these regulatory interactions, we construct a novel dataset using de-identified smartphone geolocation data covering 26 major metropolitan areas that encompass the vast majority of SEC offices and public firm headquarters. Our approach tracks devices regularly present at SEC offices to identify their visits to corporate headquarters, providing the first systematic measure of physical SEC monitoring activities. This granular data allows us to observe previously hidden aspects of regulatory oversight: preliminary inquiries before formal investigations begin, ongoing monitoring during investigations, and regulatory presence that never escalates to for-

mal proceedings. The data's precision enables us to examine both broad patterns of SEC resource deployment and market participants' responses to regulatory monitoring.

Our analysis of SEC device visit patterns both confirms existing understanding of SEC oversight and reveals novel aspects of regulatory monitoring. Consistent with prior literature on enforcement actions (e.g. Choi et al., 2023), we find that visits are more likely to occur at larger firms and those with previous enforcement histories, and tend to cluster within industries. Also as expected, regulated entities like registered investment advisers (RIAs) and broker-dealers that are subject to routine examinations are approximately four times more likely to be visited by the SEC; however, the majority of visits in our public firm sample are directed toward non-RIA and non-broker-dealer entities. Moreover, we document two previously unobservable patterns of SEC monitoring. First, the majority of visits—well over half—occur outside the context of formal investigations. Second, we find substantial "cross-region" monitoring, where SEC devices affiliated with one regional office visit firms headquartered in different regions, suggesting regulatory oversight may be less geographically constrained than previously assumed.

After characterizing the determinants of SEC device visits, we study whether these visits are associated with changes in firm value and insider behavior. Given that visits may signal increased regulatory scrutiny or potential enforcement actions, we examine stock returns around these events. Though SEC device visits are not publicized, sophisticated investors are adept at uncovering signs of firm misconduct (Karpoff and Lou, 2010; Fang et al., 2016), suggesting there is potential for information leakage. We find a significant decline in stock prices following a visit, with three-month abnormal returns between -1.4% and -1.9%. This decline is more pronounced for firms that subsequently have an SEC enforcement action brought against them. Importantly, we observe negative returns even after excluding firms that are later part of a formal SEC investigation, suggesting that device visits convey material information beyond the subset of cases resulting in explicit regulatory proceedings.

Given the materiality of these visits, a natural question is how do insiders react around these visits. Firm insiders are presumably aware of SEC visits to corporate headquarters. Under the

established legal principle of "disclose or abstain," corporate insiders have a responsibility to either publicly disclose material non-public information or refrain from trading when they possess knowledge that could materially impact the company's stock price. On one hand, firm insiders may avoid transactions to avoid the appearance of impropriety and to comply with this ethical and legal mandate. On the other hand, since these visits are typically materially negative events and not publicly released, they may be tempted to sell shares to avoid substantial losses. On average we find insiders - especially firm officers, those most likely to be physically at the headquarters and aware of any SEC inquiries - are less likely to sell around an SEC device visit. Specifically, insiders are 16.5% less likely to sell in the two weeks surrounding an SEC visit relative to periods with no visits. We also find this chilling effect is stronger for firm officers compared to other insiders. We find no effect on insiders' buys.

Notwithstanding the chilling effect, some insiders still place numerous trades around SEC device visits. When these insiders do sell around visits, they avoid three-month abnormal losses of 4.9%, on average. We then test whether the informativeness of the insider trades around visits is greater for officers than other insiders. Consistent with negative signals stemming from physical monitoring, we find the losses are stronger when firm officers of the firm sell around a visit than when insiders who are not officers (e.g., board members or blockholders) sell. We also document that the abnormal losses only occur when opportunistic (following Cohen et al. (2012)'s classification of nonroutine traders) insiders sell and find little evidence of a stock price drop when routine traders sell.

Our findings contribute to three distinct literatures. First, we add to research on SEC enforcement and investigations. While extensive work has studied enforcement actions (Karpoff et al., 2008a,b) and formal investigations (Blackburne et al., 2021), the SEC's investigative process before formal proceedings has remained largely opaque. Our results provide novel insights into this "black box" of regulatory oversight. We find that the majority of SEC visits occur outside formal investigations, challenging the implicit assumption in prior work that studying formal proceedings captures most economically meaningful regulatory interactions. Moreover, we find

that when visits precede formal investigations, the market reaction begins well before the investigation officially opens, suggesting the timing of formal proceedings studied in prior work may significantly lag the true information event. Additionally, while Kedia and Rajgopal (2011) suggest geographic proximity influences enforcement patterns, our evidence indicates modern regulatory oversight may be less constrained by distance than previously thought.

Our study contributes to the literature on the SEC's investigative process. As investigations are typically conducted privately, most existing studies rely on the date of an enforcement action. For example, Karpoff et al. (2008b) tracks market reactions around SEC enforcement actions for firms engaging in financial misrepresentation. It is also possible that firms choose to disclose the investigations or information about the investigation leaks out prior to the SEC enforcement action announcement. Dechow et al. (1996) show a sharp decrease in stock returns and analyst coverage months before the announcement of the SEC enforcement action. More recently, Blackburne et al. (2021), Blackburne and Quinn (2023), Holzman et al. (2024), and Bonsall et al. (2024) use Freedom of Information Act (FOIA) requests to examine closed formal investigations. Even these formal investigations only occur after the Commission has already approved a request for a formal order stating that it is likely that a securities law violation has occurred. By conditioning on adverse findings, the existing literature misses much of the earlier (and ongoing) investigative process. Indeed, for the sample of firms that had a formal investigation open during our sample period, we observe that 66% of the visits to these firms occur prior to the official case opening date. By directly capturing SEC interactions with firms and not relying on formal outcomes (which only occur after positive findings), we can observe a fuller picture of the investigative process.

This paper also contributes to research examining how insiders trade around corporate events. While extensive work has studied trading around public disclosures such as earnings announcements (Jagolinzer et al., 2011) and restatements (Badertscher et al., 2011), we examine trading around private regulatory events. Our setting is unique because unlike mergers (Heitzman and Klasa, 2021) or auditor communications (Arif et al., 2022) where insiders may have discretion over

eventual public disclosure, SEC investigations create a period where insiders possess material private information but face significant legal risk from trading. Our evidence that some insiders continue to trade - and profit substantially - during these periods adds to our understanding of how executives benefit from corporate misconduct (Beneish, 1999; Karpoff et al., 2008a).

This paper also extends the growing body of literature employing digital footprints derived from geospatial data to study questions in finance and economics. Taxi ridership data covering New York City has been used to study interactions between the Federal Reserve and banks (Bradley et al., 2024), sell-side analysts and firms (Choy and Hope, 2023), and institutional investors and firms (Cicero et al. 2021; Kirk and Piao 2024). Research using GPS data sourced from smartphones has researched a diverse set of economic outcomes including patenting activity (Atkin et al., 2022), infrastructure investment (Gupta et al., 2022), acquisitions (Testoni et al., 2022), and geographic mobility (Chen and Pope, 2020). Our use of geolocation data is novel in that we systematically characterize the nationwide visit patterns of regulators of public firms, a crucial interaction in financial markets.

2. Data

2.1. Geolocation Data

To create a proxy for SEC interactions with firms, we use de-identified smartphone geolocation data for a sample of US phones from January 2019 to February 2020 for the top 26 major metropolitan statistical areas (MSAs). We obtain this data from an online data vendor that provides data commercially to businesses, governments, and researchers. The data vendor works with numerous mobile application providers that track "pings" of the location of a phone while the application is either currently in use or is running in the background.[1] Reassuringly, prior research has shown that this data is representative of the demographics of the US population, with the exception of a skew towards wealthier individuals (Chen and Pope, 2020). The frequency

[1]The data does not give continuous location feedback, but it is possible to estimate within-day movement for each device using intermittent ping signals.

of pings captured in the data is also reliant on the popularity of the applications that the data vendor has access to, which may vary over time. To mitigate this concern, we include day-level fixed effects in all regressions that analyze reactions to physical monitoring. While the geolocation data may contain noise due to individuals lending out their phones, powering off devices, or not carrying phones into workplaces, such scenarios would only attenuate our findings. Importantly, we never attempt to identify specific individuals and only analyze aggregate patterns of SEC-firm interactions. Moreover, the data captures approximately 10% of phones pinging each day and 50% pinging each month, suggesting our estimates likely represent a lower bound of actual monitoring activity given that not all interactions are captured in the dataset.

We retrieve addresses for SEC offices from an archived version of the SEC's regional offices webpage, and we obtain historical corporate headquarters addresses from the 2019 10-X header data obtained from the Notre Dame Software Repository for Accounting and Finance.[2] Building on this data, we utilize the Bing Maps Locations API to geolocate the latitude and longitude of each address. To further improve precision and accuracy, we manually verify the geolocated coordinates for each firm, ensuring they are within the boundaries of the corresponding building shapes.[3] The building shapes primarily originate from the Microsoft US Building Footprint dataset, featuring over 125 million rooftop shapes generated through computer vision. To enhance this dataset, we incorporate a more precise city-level shapefile for locations where local governments provide open data on building shapes, including Boston, Chicago, Los Angeles, New York City, Washington DC, and San Francisco.

To identify the list of relevant phones, we use the *spatial join* algorithm from python-geopandas to compile the universe of phones which ever appear in an SEC office building during our sample period. Subsequently, we retrieve all corresponding pings of these phones and join the relevant pings to building shapefiles. Incorporating shapefiles of the actual buildings allows us to use the exact geometry of the building shape to identify devices that ping inside. While prior use

[2]The archived website ensures the addresses are accurate as of our sample period. The page is available here: https://web.archive.org/web/20190325164116/https://www.sec.gov/page/sec-regional-offices.
[3]We find that the accuracy of the BingAPI is about 80%.

of geospatial data in finance has typically relied on centroids with radii ranging from 30 to 200 meters or more, the use of shapefiles drastically reduces the potential for Type I errors that would arise when using centroids that overlap with roads and other nearby buildings.[4]

Our data do not allow us to identify devices that definitively are used by SEC personnel.[5] Therefore, we implement a conservative approach to identify devices likely associated with SEC activity. We adopt a restrictive definition that requires devices to demonstrate regular, sustained presence at SEC facilities during working hours. Specifically, a phone-month pair is associated with a work location only if it satisfies three conditions: (1) the device must ping inside a single work location for at least 20 unique workday hours during the month, (2) the cumulative time spent in that location must exceed the time spent in any other building during the same month, and (3) the SEC office is its modal work location across all observed months. This stringent requirement helps exclude devices that show temporary heightened activity at SEC locations, such as legal counsel involved with investigations or other traveling professionals. To further ensure we are capturing devices likely associated with SEC monitoring, devices must also visit (ping inside) a firm's headquarters during workday hours at least once during the sample period to qualify as an SEC-associated device. Devices that fail to meet these thresholds within an SEC office are excluded from the analysis. While this conservative approach may underestimate the true extent of SEC activity, it ensures our analysis primarily captures patterns of genuine SEC-associated activity, particularly when examining visits to corporate headquarters.[6]

Figure 1 illustrates how SEC-associated device visits are captured in our data. In Panel A, we display the spatial distribution of building visits by SEC devices (in red) and other devices (in blue) over a typical day from 7 am - 7 pm, aggregated into hexagons with a 1-kilometer radius. This figure demonstrates our method's effectiveness in reducing visit misattribution as the hexagons

[4]Prior research using the taxi ridership data has used 30-80 meter radii (Cicero et al., 2021; Kirk and Piao, 2024) as well as census blocks (Choy and Hope, 2021; Bradley et al., 2024), which in New York City would have an equivalent radius of approximately 340 meters. Fu (2024) uses similar smartphone data to study interactions between venture capitalists and startups and uses a 200 meter radius for the main estimate.

[5]We also are not able to distinguish between personal cell phones and SEC-issued devices.

[6]A limitation with our data is that we cannot determine whether SEC-associated devices belong specifically to SEC Enforcement personnel or to individuals from other departments.

that flag SEC device pings are typically clustered around the SEC office (yellow marker) or firm headquarters (black markers). In Panel B, we zoom into the Atlanta region to show how the use of building shapefiles allows us to precisely capture when a phone pings within a building (red markers), rather than within a nearby building, road, or parking lot (blue markers). This figure also demonstrates how we can differentiate pings in non-headquarter buildings (grey shapefiles) with headquarter buildings (yellow shapefile).

Figure 1 Panel C demonstrates the process of mapping devices to particular buildings and identifying devices associated with each building. Specifically, it shows the spatial distribution of median aggregated unique working hours at the building level for two groups of devices in a month. The devices in Panel C (a) are assigned to the Atlanta SEC building as they pinged inside the SEC building with a median 104 unique working hours during the month. Alternatively, Panel C (b) illustrates an example of devices which spend non-zero working hours inside the Atlanta SEC building (which also contains a small cafe on the ground floor) but also pings inside the business center across the street (Resurgens Plaza) for a median of 121 unique hours in the month. We assume such devices likely belong to those who visit the SEC office building while working elsewhere, and thus these devices are not identified as SEC-associated devices. Once we identify the devices associated with SEC buildings, we can construct measures of directional visits from SEC buildings to firms. By utilizing building shapefiles, we can accurately capture SEC device visits entering headquarters as well as other buildings nearby, but outside of, firm headquarters.

2.2. SEC Investigations

The SEC's investigative process follows a structured sequence of stages. Investigations can be initiated through multiple channels including the Tips, Complaints, and Referrals (TCR) system, which allows the SEC to receive information from whistleblowers, investors, and market participants. Investigations also originate from the SEC's own market surveillance activities, analysis of public filings, and referrals from other regulatory bodies (Government Accountability Office, 2007).

Many of these interactions never proceed to formal proceedings and remain unobservable to researchers. Nearly half of the SEC's Matters Under Inquiry (MUIs) conclude without escalating to a formal investigation (SEC, 2011). Moreover, until 2011, the SEC's Division of Enforcement adhered to a policy of disposing of all documents obtained during MUIs upon closure.[7] This systematic removal of records has historically prevented researchers from studying these early-stage regulatory interactions. To obtain reliable and accurate information, the SEC may conduct on-site exams. Inspections can be for-cause if the SEC believes a firm is not in compliance or has received a tip, and other investigations are part of an industry sweep. Regulated entities, such as investment advisers and broker-dealers, often receive routine on-site examinations, whereas visits to public companies are typically conducted as part of a specific investigation.

If warranted, the SEC may escalate the investigation into an informal investigation or, with Commission approval, a formal investigation that grants staff subpoena power to compel document production and testimony. Blackburne et al. (2021) find that formal investigations begin an average of two years before any public disclosure of the investigation, highlighting the opacity of early-stage SEC monitoring activities.

Firms are not legally required to report formal SEC investigations. Blackburne et al. (2021) find that only 19% of SEC investigations are initially disclosed, despite the material significance of these investigations. To determine which firms were formally investigated, we utilize Freedom of Information Act (FOIA) requests to obtain comprehensive details on formal SEC investigations. Our dataset encompasses all *closed* investigations between 2000 and 2021. Over this 22-year period, the SEC conducted more than 16,000 investigations into both public and private firms. On average, the SEC closed approximately 750 cases per year; however, the number of cases closed in any given year ranged from just over 200 in 2003 and 2005 to a peak of more than 1,300 cases in 2012.[8] We map these investigations to firms and cross-reference the investigation data

[7]For example, the OIG investigation documented instances of destroyed records, including an email from an Enforcement Division attorney stating: "I received approval to close a MUI last week and I shredded the documents and deleted e-mails yesterday (Monday). Is that a problem?"

[8]For more details on a similar dataset, see Blackburne et al. (2021) and Blackburne and Quinn (2023).

with data obtained from Holzman et al. (2024) and Blackburne et al. (2021).[9]

The SEC frequently coordinates its investigative activities through targeted "sweep" initiatives that examine multiple firms for similar potential violations. Choi et al. (2023) document that SEC enforcement actions tend to cluster by industry and time, with waves of investigations targeting specific types of misconduct. These industry-focused investigations enable the SEC to allocate resources more efficiently when addressing emerging issues or suspected widespread practices.

The geographic distribution of investigations and regional offices may impose constraints on the SEC's ability to deploy resources optimally. While sweeps enable the efficient deployment of resources by focusing on specific industries or misconduct types, the spatial dispersion of investigations and locations of regional offices can introduce inefficiencies. SEC regional offices primarily focus on oversight within their territories, but staff frequently conduct investigations across regions. As noted by the GAO, cross-regional investigations can lead to higher travel and related expenses, such as instances where staff from the San Francisco regional office conducted investigations in Atlanta (Government Accountability Office, 2007, p.16). The SEC also provides travel budgets to either fly witnesses to SEC offices or to allow staff to travel to witness locations. To our knowledge, our study is the first systematic examination of this cross-regional work.

2.3. SEC Enforcement Actions

After the SEC concludes the investigative inquiries, the SEC Division of Enforcement presents evidence to the SEC's Commissioners who vote to determine whether to pursue further action. If further action is warranted, the SEC can pursue an enforcement action either in federal court (civil action) or internally through administrative proceedings.[10] We collect information on enforcement actions from the Securities Enforcement Empirical Database (SEED) which tracks SEC

[9] Holzman et al. (2024) acquired the SEC investigation dates and classifications via FOIA requests and manually identified corresponding Compustat identifiers (GVKEYs). Holzman et al. (2024) also credit Blackburne et al. (2021) in the matching process, as their data was cross-referenced to ensure consistency and maximum sample size.

[10] In June 2024 the Supreme Court ruled in a 6-3 decision that the SEC's longstanding practice of using administrative proceedings to impose civil penalties infringed upon the right to a jury trial guaranteed by the Seventh Amendment. Supreme Court Curbs SEC's Enforcement Powers. Wall Street Journal, June 27, 2024. Accessed August 15, 2024

enforcement actions filed by the SEC.[11] The database covers enforcement actions against public firms and subsidiaries starting in 2009 and is updated through 2023. The data includes significant allegations against firms and excludes low-cost actions such as delinquent filings and follow-on actions brought after an initial primary action against a defendant. For instance, in a notable case, the SEC alleged that AmTrust failed to adequately disclose material information regarding its methods for estimating insurance losses and revenues. On June 17, 2020, these allegations were made public, and two days later, on June 19, 2020, AmTrust agreed to pay a fine of $10.5 million to settle the SEC's charges.[12] We map all cases to firms in our sample and count the number of enforcement actions by year using the first document date.

2.4. Measurement of Insider Trading Activity

We collect insider trading transaction information from the WRDS Insider Database. This database aggregates and compiles SEC Insider filings from the EDGAR platform. Following the prior literature (i.e., Cohen et al. 2012; Goldie et al. 2023) we limit our sample to Form 4s filed by corporate insiders involving open market purchases and sales of common stocks. We identify the direction of the trade (purchase or sale), the amount traded, and the role of the insider (Officer, Director, 10% Owner, or "Other" from Form 4 in field # 5). For each trading day in our sample, we identify if any insiders sold (purchased) stock and the number of insiders who sold (purchased) stock. We also aggregate this information at the firm-level on a rolling two-week window basis. $Ins\ Sell_{-5,+5}$ ($Ins\ Buy_{-5,+5}$) is equal to one if a firm insider sold (purchased) shares in the previous five trading days or will sell (purchase) shares in the subsequent five trading days, zero otherwise. $Num\ Ins\ Sell_{-5,+5}$ ($Num\ Ins\ Buy_{-5,+5}$) is equal to the number of times an insider sold (purchased) shares in the time frame.

[11] The SEED database is created by the NYU Pollack Center for Law & Business and Cornerstone Research. For more details about the database and cases included, see Choi (2020).

[12] Details about the case can be found here: https://research.seed.law.nyu.edu/Search/ActionDetail/3333/5336.

2.5. *Sample Characteristics*

We combine the insider trading records with financial data from Compustat and daily stock return data from CRSP using CRSP/Compustat Merged (CCM). Our sample construction requires firms to be covered in our geolocation data, have insider transaction data, and have (lagged) quarterly data to create firm-level control variables. Table 1 presents the geographic distribution of the resulting sample at the MSA level. Our sample consists of 2,342 firms located at least 1 kilometer from the nearest SEC regional office. During our sample period, SEC devices visit 17% of the firms at least once during work hours, defined as 7 am - 7 pm local time, excluding weekends and federal holidays. We observe considerable variation in the likelihood of being visited as the proportion of firms visited ranges from 0% to 41% across different MSAs. For each region, we also document the nearest SEC office and the median distance between firm headquarters and their nearest SEC office.[13]

Table 2 provides descriptive statistics, elaborates on visit frequency, and compares visited firms to non-visited firms. Our main independent variable of interest is *SEC Device Visit* which equals one if an SEC device pings within the shapefile of a corporate headquarters during work hours on a given day. Many SEC regional offices are located in downtown areas near other firms which may share a building with coffee shops, restaurants, or other shopping outlets. To reduce noise associated with firms located near SEC offices, we exclude corporate headquarters that are within 1 kilometer of an SEC office.[14] If the device travels less than 5 kilometers from their respective SEC office to the firm headquarters, we further require the device to ping inside the building for multiple hours.

Table 2, Panel A shows that visits are relatively rare, occurring on 0.2% of trading days during our sample period, which translates to about 0.3 days per firm on average. However, certain regulated entities, such as registered investment advisers and broker-dealers, experience signifi-

[13]There are 11 regional offices in addition to the headquarters office located in Washington, DC. Our geolocation data does not include coverage in Utah; therefore, we do not observe any SEC devices associated with the Salt Lake Regional Office.

[14]Our main results are qualitatively similar without this exclusion.

cantly more frequent visits, driven by routine compliance inspections. We find that these entities are approximately four times more likely to be visited during our sample period. Consistent with prior literature, insider trading is also relatively infrequent, as evidenced by the median of both insider trading measures equaling zero. Insiders are more likely to sell stock than purchase it, with a two-week probability of at least one insider sale at 17.5% and a corresponding probability of purchases at 5.9%.

$Abn\ Ret_{0,t}$ (abnormal returns) are calculated as the stock return of firm i in excess of the CRSP value-weighted return from the focal day (0) until trading day t. These variables vary in length from 10 trading days (two weeks) to 63 trading days (3 months) and the unconditional averages are slightly negative. Firm-specific control variables are measured as of the previous quarter and include *Size* (natural logarithm of total assets), *Leverage* (ratio of long-term debt to total assets), *Book-to-market* (book value of equity divided by market value of equity), *Turnover* (natural logarithm of the total shares traded in a quarter divided by common shares outstanding), and *Distance to nearest SEC office* (natural logarithm of the distance in kilometers from firm headquarters).[15] On average, firms are located about 140 kilometers from the nearest SEC office, although as displayed in Table 1, this widely varies by region.

Panel B summarizes the visit intensity among the visited firms and SEC devices. The average firm is visited approximately four days, although some firms are visited on a single day by a single SEC device and other firms are visited up to 25 days and by as many as 10 unique devices. Each SEC device visits, on average, 3 unique firms.

2.6. Univariate Differences

Panel C presents a univariate comparison of firm characteristics and observable SEC actions between visited and non-visited firms. On average, visited firms are larger, more indebted, and are located closer to SEC regional offices compared to non-visited firms. Notably, visited firms are, on average, three times more likely to have a history of SEC enforcement actions (9% versus

[15]Distance is calculated using Stata's "geodist" command.

3%) and have a greater number of prior SEC enforcement actions (0.23 versus 0.07) relative to non-visited firms. We do not observe a statistical difference in the number of prior formal SEC investigations.

Our analysis next examines if visits materialize into more stringent regulatory outcomes. This investigation serves two purposes: it validates our main visit measure as a meaningful indicator of SEC monitoring and assesses whether physical monitoring predicts subsequent formal investigations or enforcement actions.

Our findings demonstrate that firms receiving visits face a substantially higher likelihood of formal investigation. Specifically, visited firms are 57% more likely to be under an active formal SEC investigation during our sample period than non-visited firms (11% versus 7%). Further, visited firms are 29% more likely to have a formal investigation conclude after the sample period (9% versus 7%), though this difference is not statistically significant, potentially because we only observe investigations that are closed by the end of 2021. Notably, while visited firms are more likely to be involved with a formal investigation, most of our visits occur at firms that are not formally investigated (as discussed further in Section 4.3).

We also analyze the relationship between visits and SEC enforcement actions using data from SEED through 2023. Significant allegations from SEC-imposed enforcement actions are quite rare. Our findings reveal that visited firms are twice as likely to face SEC enforcement actions compared to their non-visited counterparts (2% versus 1% during the sample period and 6% versus to 3% after the sample period).

The intensity of enforcement also differs significantly. Visited firms experience more enforcement actions (0.03 versus 0.01 during the sample period; 0.10 versus 0.05 after the sample period) compared to non-visited firms. These findings may represent a lower bound, as visits could likely be associated with investigations not closed by 2021, or enforcement actions that had not materialized by the end of 2023.

Though not the focus of this paper, we are also able to identify firm HQ-associated devices and gauge their propensity to visit SEC offices. Among firms visited by SEC-associated devices, 37%

have devices associated with their headquarters ping inside an SEC office, compared to just 7% of firms not visited by the SEC. Collectively, these univariate tests provide compelling evidence that visited firms are more likely to be associated with observable SEC outcomes. Further, this analysis serves as a data validation exercise; it provides reassurance for our primary variable of interest and confirms the notion that much of the SEC investigative process occurs outside of SEC formal regulatory actions.

3. Predicting SEC Device Visits to Firm Headquarters

In this section, we examine what factors predict SEC device visits to firm headquarters. Understanding these determinants serves two purposes: first, it validates our measure by confirming known patterns of SEC oversight, and second, it reveals novel aspects of regulatory monitoring. Given that most firm characteristics are measured quarterly, we aggregate our data to this frequency and estimate the following model:

$$\begin{aligned} SEC\ Visit_{i,q} = {} & \beta_1 Ind\ Sweep_{i,q} + \beta_2 Nearest\ SEC\ Office\ Visits_{i,q} \\ & + \sum_j \beta_j Firm\ Characteristics_{i,q-1} + \sum_k \beta_k Enforcement\ Characteristics_{i,q-1} \\ & + \gamma' FE + \epsilon \end{aligned} \tag{1}$$

where $SEC\ Visit_{i,q}$ is an indicator variable equal to one if a firm is visited in the quarter. $Ind\ Sweep_{i,q}$ measures the log of visits to *other* firms in the same (Fama French 12) industry as the focal firm, and *Nearest SEC Office* $Visits_{i,q}$ is an analogous measure that captures the log of visits made by the nearest SEC office to *other* firms.[16] $Firm\ Characteristics_{i,q-1}$ includes *size*, *leverage*, and *RIA HQ*, a binary variable equal to one if the firm shares a building with a registered investment adviser. $Enforcement\ Characteristics_{i,q-1}$ captures prior misconduct, such as whether the firm had a prior SEC enforcement action or issued an accounting restatement in the past year. We also include *Q Score*, which indicates whether the firm has avoided having a "4" in the first post-decimal

[16] Both measures exclude visits to the focal firm.

digit of quarterly EPS over the last five years, a signal associated with earnings manipulation detection by the SEC (Malenko et al., 2023).[17] Finally, we include the *Regulation Intensity*, which is an index estimating the hours a firm spends on compliance, sourced from Kalmenovitz (2023).

Table 3 presents the results from the prediction regressions. In Columns (2)-(4), we sequentially add Year×Quarter and MSA fixed effects. As expected, the results show that the SEC is more likely to visit larger firms and firms that have prior SEC enforcement actions (though the result is not statistically significant at conventional levels in columns 3 and 4). Across all specifications, $Ind\ Sweep_{q-1}$ is positively correlated with the likelihood of a firm being visited, consistent with statements from the SEC that they use various "sweeps" strategies to shape market behavior.[18] Similarly, the coefficient on *Nearest SEC Office* $Visits_{i,q-1}$ is also positive, suggesting regional surges in SEC visits. We also find that firms that are registered investment advisers (or located in a building with a registered investment adviser) are more likely to be visited.[19] We find no evidence of significant associations with accounting restatements, *Q Score*, or *Regulatory Intensity*.

To capture the geographic relationship between firms and SEC offices, we employ three distinct distance measures. Following Kedia and Rajgopal (2011), we calculate the distance between each firm's headquarters and the nearest SEC office (*Distance to nearest SEC office*). Unlike Kedia and Rajgopal (2011), who rely on county-centroid locations (e.g., all firms in Los Angeles county are assigned the same point), our geolocation data allows us to compute a much more precise distance using the street addresses of firms' headquarters and SEC offices. We also include two binary proximity measures: *Proximate100* (again Kedia and Rajgopal (2011) who use it to identify firms within reasonable travel distance), which equals one if a firm is located within 100 kilometers of an SEC office, and *Proximate15*, which equals one if a firm is located within 15 kilometers of an SEC office. The 15-kilometer threshold corresponds to the core urban area of the metropolitan regions in our sample, allowing us to distinguish between firms in dense urban centers versus

[17] Investors, Take Heart When You See the Number 4 in Quarterly Earnings Figures. Wall Street Journal, March 3, 2023. Accessed March 21, 2024

[18] Remarks Before the Practising Law Institute's 54th Annual Institute on Securities Regulation. SEC Chair Gary Gensler, November 2, 2022. Accessed March 21, 2024

[19] We discuss how firm co-location may influence our results in Section 7.1.

broader metropolitan areas. This granular measurement is possible due to our precise address-level data, providing a more refined analysis than previous studies using county-level distances.

Interestingly, and in contrast to Kedia and Rajgopal (2011), we find limited evidence that distance affects SEC oversight beyond the core urban area. In our analysis, neither the continuous distance measure nor the 100-kilometer proximity indicator shows significant predictive power for SEC visits after controlling for other factors. This may reflect our use of SEC visits instead of enforcement outcomes, more precise distance measures, or changes in SEC practices, such as technology and travel capabilities, that may have improved since Kedia and Rajgopal (2011).

We further explore nationwide visits and examine the extent of cross-regional work in Figure 2. Panel A depicts the MSAs for which we have geolocation coverage (shaded yellow), SEC office locations (red markers), and SEC device visits to firm headquarters that are captured in our data (from origin of device in red to destination in orange). Though the majority of visits happen between firms and SEC offices within the same MSA, a substantial proportion of cross-regional visits occur. Approximately 14% of the visits in our data are cross-region visits. Panel B zooms into the smartphone pings for one month of our sample in the Atlanta MSA, with visited firms depicted by buildings containing blue markers. This figure highlights several aspects of our data. First, devices linked to the Atlanta SEC office visit firm headquarters both within and outside the Atlanta region. Second, devices from other SEC regions also visit Atlanta-based firm headquarters, as shown by the red-orange line entering from the lower left of Panel B. Third, we observe that not all firms in the area are visited, as indicated by the highlighted shapefiles without blue markers. These findings suggest that the SEC's modern enforcement activities may be less constrained by geographic distance than previously suggested.

4. The Materiality of SEC Device Visits

Having established patterns in SEC device visits, we next examine whether these visits convey economically meaningful information to market participants. We structure this analysis in three parts. First, we examine stock returns around all SEC device visits. Second, we analyze

whether returns differ for firms that ultimately face enforcement actions. Finally, we distinguish our findings from effects previously documented around formal investigations.

4.1. All Visits

While SEC device visits are not publicly disclosed, they may nonetheless convey material information to market participants. Prior research shows sophisticated investors can identify signs of potential misconduct through various channels (Karpoff and Lou, 2010; Fang et al., 2016). Moreover, our univariate evidence suggests these visits often precede more serious regulatory actions. We therefore examine stock returns around SEC device visits to test whether they represent economically meaningful events. This analysis serves two purposes: it validates the importance of monitoring activities that fall outside formal proceedings, and it provides insight into how quickly information about regulatory oversight diffuses into market prices.

To test the relationship between SEC device visits and abnormal stock returns, we exploit the granularity of our data and estimate the following regression model at the daily level:

$$Abn\ Ret_{i,0\ to\ t} = \beta_1 SEC\ Device\ Visit_{i,t} + \sum_k \beta_k Firm\ controls_{i,t} + \gamma' FE + \epsilon \tag{2}$$

where $Abn\ Ret_{i,0\ to\ t}$ is the stock return of firm i in excess of the CRSP value-weighted return from the day of an SEC device visit until trading day t, which varies in length from 10 trading days (two weeks) after the visit to 63 trading days (3 months) after the visit. We include firm-level controls for size, leverage, book-to-market, turnover, and distance to the nearest SEC office. We include *Date* and *Industry* fixed effects, or alternatively *Date* and *Firm* fixed effects, and cluster standard errors at the MSA-date level.

Table 4 documents the effect of SEC device visits on a firm's abnormal. Results using *Industry* and *Date* fixed effects are shown in Panel A, and results using *Firm* and *Date* fixed effects are shown in Panel B. Across all return windows, we find a negative stock return for a visited firm that is statistically significant after two to three months. Referring to the *Firm* fixed effects model, a firm's return is 28 basis points lower on average in the two trading weeks ($Abn\ Ret_{0,10}$) after a

visit. The magnitude of the reaction increases over longer windows, with an average abnormal return of -1.94% in the three months ($Abn\ Ret_{0,63}$) after the visit. This monotonic decrease in the stock price over longer windows is consistent with gradual information leakage to market participants and suggests that SEC visits do signal an increased likelihood of future regulatory costs for firms.

An important caveat to our analysis is that SEC visits likely respond to underlying firm conditions or potential misconduct that independently affect returns. We do not claim that SEC visits solely cause negative returns, but rather that they mark a meaningful step in the flow of negative information to markets. Several patterns in our data support this interpretation. First, while pre-existing concerns may drive both SEC visits and returns, the precise timing of significant negative returns following visits suggests these regulatory interactions accelerate information discovery. Second, we find negative returns even for visits that never lead to formal investigations (in Section 4.3), indicating our results capture more than just the market gradually learning about serious misconduct. Third, the stronger return patterns for officer sales compared to non-officer sales around visits (in Section 5) suggests the physical presence of SEC personnel conveys incremental information beyond underlying firm conditions.

One concern regarding the empirical framework used in equation 2 is that the stock return for firm i prior to the visit may influence the probability that a visit occurs. To better visualize how the stock price changes around the visits we estimate a series of expanding regressions using the following framework:

$$Abn\ Ret_{i,-21\ to\ t} = \beta_1 SEC\ Device\ Visit_{i,0} + \sum_k \beta_k Firm\ controls_{i,t} + \gamma' FE + \epsilon \tag{3}$$

The key difference is that we begin our measure of abnormal returns 21 trading days (one month) prior to the visit. We estimate equation 3 for every window from day -21 to day 63, expanding the measure by one day each estimation. The resulting coefficients for β_1 are shown in Figure 3, with the results using $Industry$ and $Date$ fixed effects in Panel A and using $Firm$ and $Date$ fixed

effects in Panel B. We find no evidence of abnormal returns in the pre-window, and, consistent with Table 4, we observe a gradual drop in abnormal returns after the firm is visited by an SEC device. Together these results provide compelling evidence that visits from SEC devices signals a negative outlook for the average firm.

4.2. Enforcement Actions

Though the use of geospatial data gives us an unprecedented look into the interactions between SEC regulators and public firms, we are unable to observe the precise nature of each visit. Visits may happen for relatively benign reasons like industry sweeps where we would not expect to see a drastic drop in stock price. Visits may also occur for more serious reasons, such as a firm being suspected of violating securities laws, where a drop in stock price would be more likely. To shed light on the heterogeneous nature of visits, we next examine how the stock price is affected for the subset of firms that are simultaneously involved in an SEC enforcement action. We identify the first date documents are available to the general public indicating the SEC allegation related to the enforcement action. We suspect that these firms will be more closely monitored and any negative information leakage related to SEC visits will more quickly be uncovered by the market, leading to stronger negative stock returns following an SEC visit. To formally test this conjecture, we estimate the following equation:

$$\begin{aligned} Abn\ Ret_{i,-21\ to\ t} = \beta_1 SEC\ Device\ Visit_{i,0} + \beta_2 SEC\ Enf_i \\ + \beta_3 SEC\ Device\ Visit_{i,0} \times SEC\ Enf_i + \sum_k \beta_k Firm\ controls_{i,q} + \gamma' FE + \epsilon \end{aligned} \tag{4}$$

where $SEC\ Enf_i$ is equal to one if firm i has an SEC enforcement action filed against them during our sample period. All other variables are as described in previous figures and tables. The regressions use $Firm$ and $Date$ fixed effects (subsuming β_2). We cluster standard errors at the MSA-date level.

Figure 4 displays the results. In Panel A, the dotted line represents the coefficients on β_1 and the solid line presents the cumulative $\beta_1 + \beta_3$ coefficients. The results show that firms with an

SEC enforcement action suffer much stronger stock price reductions after a visit than firms who are visited but have no enforcement actions against them. Notably we still observe a negative effect on β_1 suggesting there are other negative costs to an SEC device visit (e.g., potential for increased regulatory burden) beyond the threat of an SEC enforcement action. We once again observe no pre-trend effect on the stock price prior to an SEC device visit. In Panel B of Figure 4, we display the coefficients for two week, one month, two month, and three month windows where abnormal returns are measured beginning on the date of the SEC device visits ($t = 0$). The results are consistent with Panel A, showing the stock price reaction is stronger and occurs sooner for firms with SEC enforcement actions.[20]

4.3. Formal Investigations

Prior literature typically relies on the publicly disclosed date of enforcement actions (Karpoff et al., 2008b) or, more recently, closed formal investigations which precede enforcement actions (Blackburne et al., 2020, 2021; Holzman et al., 2024; Bonsall et al., 2024). We demonstrate that SEC device visits represent a distinct and previously unexplored channel of regulatory monitoring, with material market implications that extend beyond formal proceedings.

First, to compare the materiality results from the findings from known regulatory effects, we analyze the relationship between device visits and formal investigations. We define *Formal Investigation* as an indicator variable equal to one if the firm was involved with a formal SEC investigation between 2019-2021, zero otherwise. We interact this variable with our main measure, *SEC Device Visit*, and estimate the following model:

[20] For completeness, in our remaining tests we report the coefficients for these windows along with the stock return figures that include pre-trends. For brevity, we primarily only discuss the results that include pre-trends in the text.

$$
\begin{aligned}
Abn\ Ret_{i,0\ to\ t} = {} & \beta_1 SEC\ Device\ Visit_{i,0} + \beta_2 Formal\ Investigation_i \\
& + \beta_3 SEC\ Device\ Visit_{i,0} \times Formal\ Investigation_i \\
& + \sum_k \beta_k Firm\ controls_{i,q} + \gamma' FE + \epsilon
\end{aligned} \tag{5}
$$

Table 5 presents the results. Our analysis reveals that device visits predict negative returns (-1.48% over three months) even for firms that are not involved with formal investigations. Moreover, when visits precede formal investigations, the market reaction is substantially larger (-4.21% over three months), suggesting these visits identify particularly severe regulatory concerns. Figure 5 displays that the baseline effect is robust to excluding firms involved with formal investigations and displays no pre-trends prior to the visit.

Second, as highlighted in Section 2.6, despite visited firms being more likely to be involved with formal investigations, the majority of the identified visits are to firms that do not undergo formal investigations. We adopt a conservative approach and identify formal investigations that closed anytime between 2018-2021– approximately three-quarters of our observed visits are to firms without a formal investigation that closed at any point during this time period. Since we only observe investigations that closed by 2021, this estimate likely overstates the proportion of visits unrelated to formal investigations.[21] By incorporating historical formal investigations from prior years and estimating the number of ongoing cases closed within two years, we find that closer to half of the visits we observe are likely unaffiliated with formal investigations.

Third, to shed light on the timing of visits relative to commencement of formal SEC investigations, we limit our attention to a subset of visited firms that had a formal investigation begin during our sample period and conclude by 2021. Among the resulting sample of 18 firms, 66% of the visits (23 out of 31 visits) occurred prior to the official investigation opening date, which is

[21] This formal investigation data from FOIA requests are only granted for *closed* cases.

often assumed as the start of the investigative process.[22] This finding highlights a potential shortcoming of assumptions about start dates commonly used in the literature and suggests substantial correspondence likely occurs before a formal SEC investigation officially begins.

Finally, we examine if the market appears to recognize the information content of these early visits prior to the formal investigation opening dates. We find that when visits precede formal investigations, the market reaction begins well before the case opening date. Specifically, the three-month abnormal returns for firms visited prior to the case opening date is -1.50%. Thus, the timing of formal proceedings studied in prior work likely significantly lags the true information event. Our analysis establishes that SEC device visits represent a distinct monitoring mechanism that captures regulatory oversight beyond formal investigations, providing earlier signals of potential concerns and affecting a broader range of firms than previously documented in the literature.

5. SEC Device Visits and Insider Trading

In this section, we examine whether firm insiders modify their trading behavior when the firm is visited by an SEC device. The SEC states that investigating unlawful trades by corporate insiders is a high priority, as minimizing these trades will "strengthen investor protection and the integrity of our securities markets."[23] Ex ante, it is unclear how insiders may respond to a visit from a regulator. One might expect insiders to increase sales of their holdings in the firm as a visit from the SEC may be indicative of future enforcement actions and a decline in the stock price. Consistent with this prediction, Li (2024) shows that insiders have successfully traded around the revelation of financial misconduct, suggesting they may also attempt a similar trade around SEC visits. Alternatively, the SEC presence may act as a deterrent, discouraging insiders from making trades which could garner scrutiny as these visits may represent material non-public information.

[22] One firm was visited the same day as the investigation opening date.

[23] Strengthening Insider Trading Rules for Corporate Insiders. Commissioner Jaime Lizárraga, Dec. 14, 2022. Accessed March 21, 2024.

To test these competing hypotheses, we employ the following regression specification:

$$Ins\ Trade_{i,-5\ to\ +5} = \beta_1 SEC\ Device\ Visit_{i,t} + \sum_k \beta_k Firm\ controls_{i,q} + \gamma' FE + \epsilon \tag{6}$$

where $Ins\ Trade_{i,-5\ to\ +5}$ is either $Ins\ Sell_{-5,+5}$ or $Num\ Ins\ Sell_{-5,+5}$, or an analogous insider purchase measure. When we turn to the count-like measure of $Num\ Ins\ Sell_{-5,+5}$, we are faced with the question of how to handle the distribution of the count-based outcome variable. Although the natural log of 1 plus the outcome variable as a dependent variable is common in corporate finance research, Cohn et al. (2022) document that this practice produces estimates without a natural interpretation which can even have the wrong sign. Thus, we follow the recommendation to estimate a fixed-effects Poisson model which alleviates these concerns.[24] Due to the infrequency of insider trades, we aggregate insider transactions on a rolling two-week window basis around the visits as mentioned in Section 2.4. We include firm characteristics (firm size, leverage, book-to-market, turnover, and distance to the nearest SEC office), Fama-French 12 industry and date fixed effects, and cluster standard errors at the MSA-date level.

The results in Table 6 reveal that SEC visits have a chilling effect on insider trades, but only for insiders' sales and not for purchases. During the two-week window surrounding an SEC device visit, insiders demonstrate a 2.89% lower probability of selling their firm's shares. In terms of economic magnitude, this represents a decrease of 16.5% relative to the unconditional average of 17.5%. Notably, we find no effect on insider purchases. The results in Columns (2) and (4) show that the result is not sensitive to the measure used to capture insider trades.[25] This outcome suggests that the physical presence of SEC regulators serves as additional monitoring and deters profitable selling opportunities.

We next examine whether the observed chilling effect varies systematically across different

[24] We use the Stata package *PPMLHDFE* which allows for efficient Poisson estimation with high-dimensional fixed effects. See Correia et al. (2020) and Correia et al. (2019) for more details.

[25] As shown in Table B1 results are qualitatively similar if we instead follow the prior literature and use the natural log of 1 plus the outcome variable for our count-like measures (# $Ins\ Sell_{-5,+5}$ and # $Ins\ Purchase_{-5,+5}$) and estimate with ordinary least squares instead of the fixed-effects Poisson model.

categories of insiders. Using Form 4 field #5 classifications, we distinguish between officers and other insiders (including Director, 10% Owners, and "Other" categories). This distinction is particularly relevant because executives typically are closer in proximity to corporate headquarters and possess greater awareness of SEC inquiries than other insiders. In addition, it is plausible that executives face higher scrutiny regarding timely trades around SEC investigations than do other investors. Given these factors, we expect that the observed trading reduction would be more pronounced among officers compared to other insiders.

Given the results shown in Section 4, insiders with access to this inside information have a likely profitable trading opportunity but may fear detection and punishment. Prior literature has identified nonroutine traders (Cohen et al., 2012) tend to make particularly opportunistic trades, although these trades are less likely to be made during periods of intense scrutiny by the SEC.[26] Similarly, Del Guercio et al. (2017) find that an increase in litigation risk as proxied by aggressive SEC enforcement activity also deters insider trading. Therefore, we follow Cohen et al. (2012) and distinguish between opportunistic and routine traders, where routine traders are defined as an insider who placed a trade in the same calendar month for at least three consecutive years. Opportunistic traders may be more willing to act on the inside information and place a profitable trade; they also may be less likely to trade as they face heightened regulatory scrutiny. Therefore, we have competing hypotheses regarding whether an SEC device visit will have a differential effect between the two groups.

Table 7 reports the results. In Panel A, we see that the chilling effect is more pronounced for officers than non-officers in terms of both the economic magnitude and statistical significance. Comparing Columns (1) and (3), officers have a 2.94% lower propensity to trade around an SEC device visit whereas non-officers are 0.95% less likely to trade. This pattern persists when we examine the number of insiders selling as our dependent variable. In Panel B, we do not observe meaningful differences between opportunistic and routine traders, suggesting that physical SEC presence serves as a deterrent for both groups of traders.

[26] Akbas et al. (2020) also finds short-horizon investors are also more informed than long-horizon investors.

6. Do Corporate Insiders who Sell around Visits Avoid Abnormal Losses?

While our results to this point demonstrate that SEC visits generally deter insider selling, we observe numerous instances where insiders execute sales around these visits. This pattern suggests that certain SEC interactions may signal particularly negative information, creating strong incentives for informed trading despite heightened scrutiny. This section examines whether insiders who choose to trade around SEC visits successfully avoid significant losses. This provides useful insights into both the information content of SEC visits and insiders' ability to capitalize on this information.

To empirically test this idea, we estimate the following regression model:

$$\begin{aligned} Abn\ Ret_{i,-21\ to\ t} = \beta_1 Insider\ Sell\ Around\ SEC\ Device\ Visit_{i,0} \\ + \sum_k \beta_k Firm\ controls_{i,q} + \gamma' FE + \epsilon, \end{aligned} \tag{7}$$

where our primary variable of interest is $Sell\ around\ SEC\ Device\ Visit_{i,0}$, an indicator variable equal to one if an insider sells during the two-week window surrounding an SEC device visit. The dependent variable, $Abn\ Ret_{i,-21\ to\ t}$ is measured relative to the sale date ($t = 0$). The model includes the same host of firm controls and fixed effects with standard errors clustered at the MSA-date level. In these tests, we restrict the sample to instances when an insider sells so that the results can be interpreted as the abnormal returns avoided by an insider who sells around an SEC device visit relative to an insider who sells when there is no associated visit.

Figure 6 presents the results directly measuring the differential performance of sales around SEC visits compared to other insider sales. The results are striking: sales around visits are highly informative and are followed by significant stock declines. Relative to other sales, the abnormal returns decline by 4.9% three months following the sale. Importantly, we do not observe any pre-trends prior to the sale. Panel B reports consistent results when using $Abn\ Ret_{0,t}$ as the dependent variable.

We next examine how returns vary when a sale is made by an officer of the firm versus an

insider who is a non-officer (e.g., board member or blockholder). Because officers are more likely to be located at the headquarters and informed of any potential SEC inquiries, we expect their sales around visits to be more informative than those of non-officers. To test this conjecture, we modify equation 7 so that the main variable of interest is an officer (non-officer) sale around an SEC device visit.

We present the results for the performance of sales by officers and non-officers around visits in Figure 7. Panel A compares the results using the expanding regressions with pre-trends. Consistent with our hypothesis, we find a strong negative stock response when officers of the firm sell around a visit. The solid line depicts returns around an officer sale and shows the response occurs within a month of the sale and is -5.8% after three months. The dotted line represents returns around non-officer sales and shows a downward but much noisier trend that is statistically indistinguishable from zero. These results lend further support to the idea that a subset of SEC visits convey negative information about a firm's future performance and suggest this information is transmitted through face-to-face communication.

One potential concern regarding our results thus far is that the drop in returns we document around visits is not novel, but rather capturing effects shown in prior research, such as the opening of an SEC investigation (Blackburne et al., 2021). To further differentiate our results from those documented in the prior literature, we next explicitly drop firms that are involved with a formal SEC investigation. To this end we identify all firms that were included in the FOIA logs that had a closed case by the end of 2021. Figure 5 displays the results after excluding the formally investigated firms. (Figure B1 displays the results regarding abnormal returns when an insider sales around a visit.) The results remain both economically and statistically significant, indicating that our documented effects extend beyond the formal investigation process previously studied in the literature. Our study documents that visits outside of the formal investigation process happen regularly and are material events.

Finally, while we do not observe a statistical difference in the propensity to trade among opportunistic vs routine traders, we consider the informativeness of these traders around device

visits. Sales made by routine traders around SEC device visits may be coincidental whereas a sale by an opportunistic trader is more likely to signal a negative visit. The results are shown in Figure 8. In Panel A, the solid (dotted) line depicts returns when an opportunistic (routine) trader makes a sale around an SEC device visit. We find that abnormal losses only occur when opportunistic insiders make a sale and find no evidence of a stock price drop when routine traders make a sale. Specifically, the three-month abnormal returns for opportunistic sales around visits is -9.8% and for routine sales it is a statistically insignificant -1%. Together, our analyses in Section 6 document that insiders are able to avoid significant losses when they trade around SEC device visits, particularly when those insiders are most likely to know the nature of the SEC visit.

The relationship between SEC visits, insider trading, and returns presents complex causality challenges. The underlying issues that attract SEC scrutiny likely affect both trading decisions and future returns. However, several patterns suggest our analysis captures meaningful information flow around regulatory oversight rather than simply reflecting pre-existing negative information. First, the chilling effect on insider sales around visits indicates that the physical presence of SEC personnel influences trading decisions beyond any effects of underlying firm conditions. Second, the differential trading patterns between officers (who likely directly observe SEC presence) and other insiders suggest the visits themselves convey meaningful information. Third, the concentration of profitable trading among opportunistic traders rather than routine traders aligns with the strategic use of visit-specific information. Finally, our granular data allowing precise identification of visit timing enables us to rule out pre-trends, helping establish the sequence of information flow from regulatory oversight to market prices.

7. Measurement Validation and Extended Analysis

This section addresses potential measurement concerns and extends our analysis to examine how different trading arrangements affect our main findings.

7.1. Impact of Shared Corporate Headquarters

One potential concern is that many corporate headquarters are located in downtown areas where buildings often house multiple tenants, including registered investment advisers (RIAs), other public companies, as well as coffee shops, restaurants, retail outlets and other businesses. These shared spaces could lead to false positive visits if we incorrectly attribute an SEC device's presence to monitoring activity when they are actually visiting another tenant. We address this concern in two ways.

First, we exclude firms that share headquarters with RIAs, as these firms receive routine compliance examinations that could confound our analysis of investigative visits. Using Form ADV to identify the 12,120 RIA headquarters in the US during our sample period, we identify the 475 shared corporate headquarters in our sample and exclude them for this test. Not surprisingly, many of these shared locations are in financial centers such as New York City. When we exclude these firms, our findings become notably stronger - the magnitude of abnormal returns increases by approximately 50% (Column (2) in Table 8 versus Column (4) in Table 4). Panels A and C of Figure 9 show that both the negative abnormal returns following SEC visits and the losses avoided through insider sales become more pronounced in this subsample.

Second, we restrict our sample to firms in standalone buildings not shared with other public companies. We document 598 firms are located in buildings containing multiple corporate headquarters and exclude them for this test. As shown in Panels B and D of Figure 9, our results persist with comparable economic magnitudes in this most conservative sample. The fact that our findings become stronger when focusing on standalone buildings suggests that shared buildings introduce measurement error, which attenuates rather than drives our results. While SEC visits to co-located firms could create concern for other firms in the same building, potentially affecting their behavior, the stronger results in standalone buildings suggest this potential spillover effect is not driving our findings.

The robustness of our findings to these sample restrictions, and their increased magnitude in cleaner settings, provides further confidence that our documented effects reflect genuine reg-

ulatory monitoring rather than artifacts of building co-location. Our conservative approach to measurement likely leads us to underestimate the true impact of SEC visits in our baseline analysis.

7.2. Impact of Rule 10b5-1 Trading Plans

We next examine whether the informativeness of insider trades around SEC device visits differs between sales executed under Rule 10b5-1 trading plans and those conducted outside such plans. This analysis is motivated by recent work from Fich et al. (2023) documenting that executives can exploit Rule 10b5-1 plans opportunistically by strategically canceling planned trades to profit from private information. If 10b5-1 plans provide a "safe harbor" for informed trading around SEC visits, we would expect larger abnormal returns for trades executed under such plans.

Figure B2 presents the results. Panel A plots abnormal returns following 10b5-1 sales around SEC device visits, while Panel B plots returns following non-10b5-1 sales. We find that both types of sales predict significant declines in future returns, suggesting that opportunistic trading persists regardless of the trading mechanism. The magnitude of losses avoided appears greater for 10b5-1 sales compared to non-10b5-1 sales, though this difference is not statistically significant at conventional levels.

These findings complement recent work on the strategic use of 10b5-1 plans by suggesting that insiders may view these plans as providing cover for informed trading around regulatory events. However, the lack of statistical significance in the difference between plan and non-plan trades indicates that both methods can be used to exploit private information about SEC oversight activities.

8. Conclusion

This study illuminates previously unexplored interactions between regulators and public firms, offering new insights into the SEC's monitoring practices. We address a fundamental challenge in understanding regulatory oversight, the tendency to observe only formal outcomes, typically negative ones, much like Wald's (1943) analysis of surviving aircraft missing crucial patterns

of vulnerability. By tracking SEC devices that visit firm headquarters, we reveal that regulatory monitoring is more dynamic and geographically dispersed than previously documented. Although many of these visits never progress to formal investigations, they represent economically significant events - firms experience significant market value declines following SEC presence, with losses particularly pronounced for those ultimately subject to enforcement actions. Our analysis of insider trading around these visits provides novel evidence of how corporate executives respond to regulatory scrutiny. Although most insiders curtail their selling activity when SEC personnel visit, suggesting greater caution in the possession of potentially material information, those who continue to trade avoid substantial losses by selling before negative information becomes public. These findings demonstrate that studying only formal proceedings misses important aspects of how regulators monitor markets and how firms and insiders respond to regulatory oversight. More broadly, our work demonstrates the value of examining regulatory activities through novel data sources, offering a more complete picture of how regulators monitor markets and how firms and insiders respond to oversight.

Declaration of generative AI and AI-assisted technologies in the writing process

During the preparation of this work the author(s) used Claude and ChatGPT in order to improve language and readability. After using this tool/service, the author(s) reviewed and edited the content as needed and take(s) full responsibility for the content of the publication.

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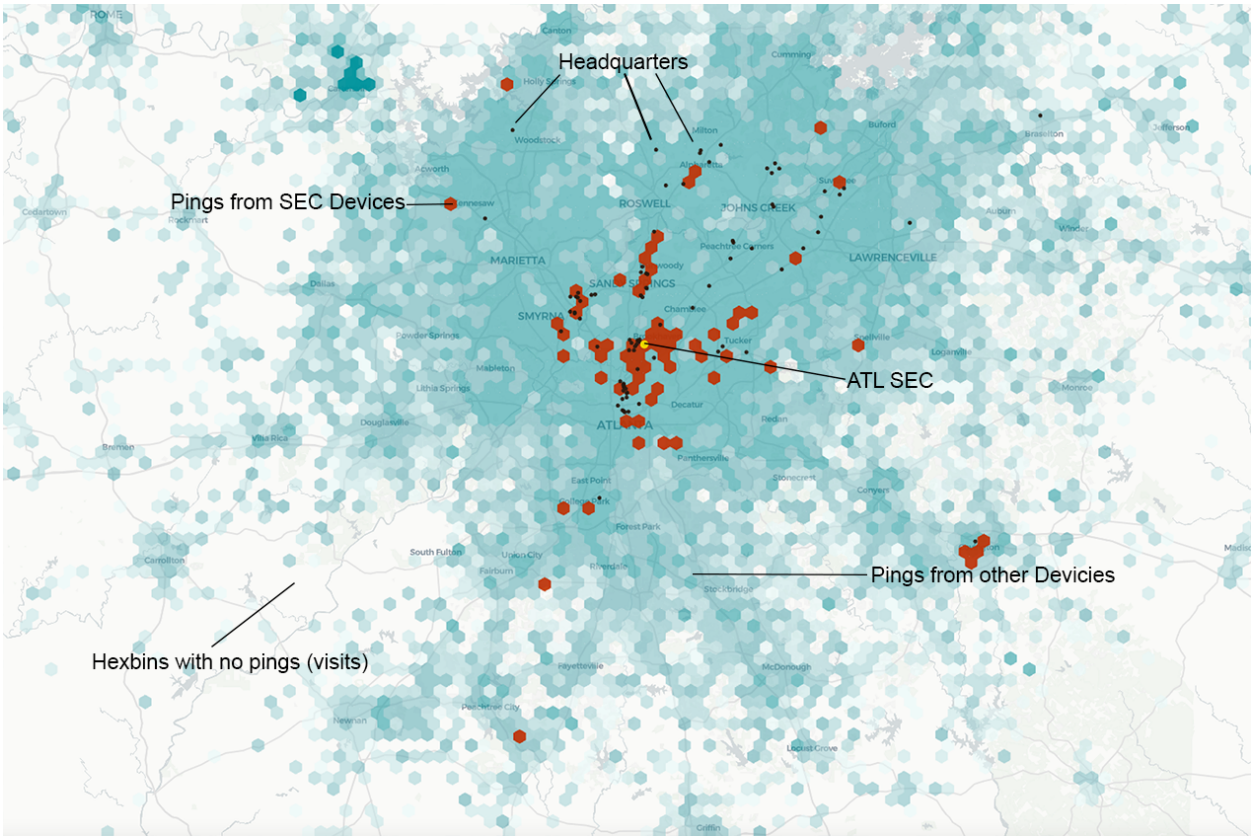
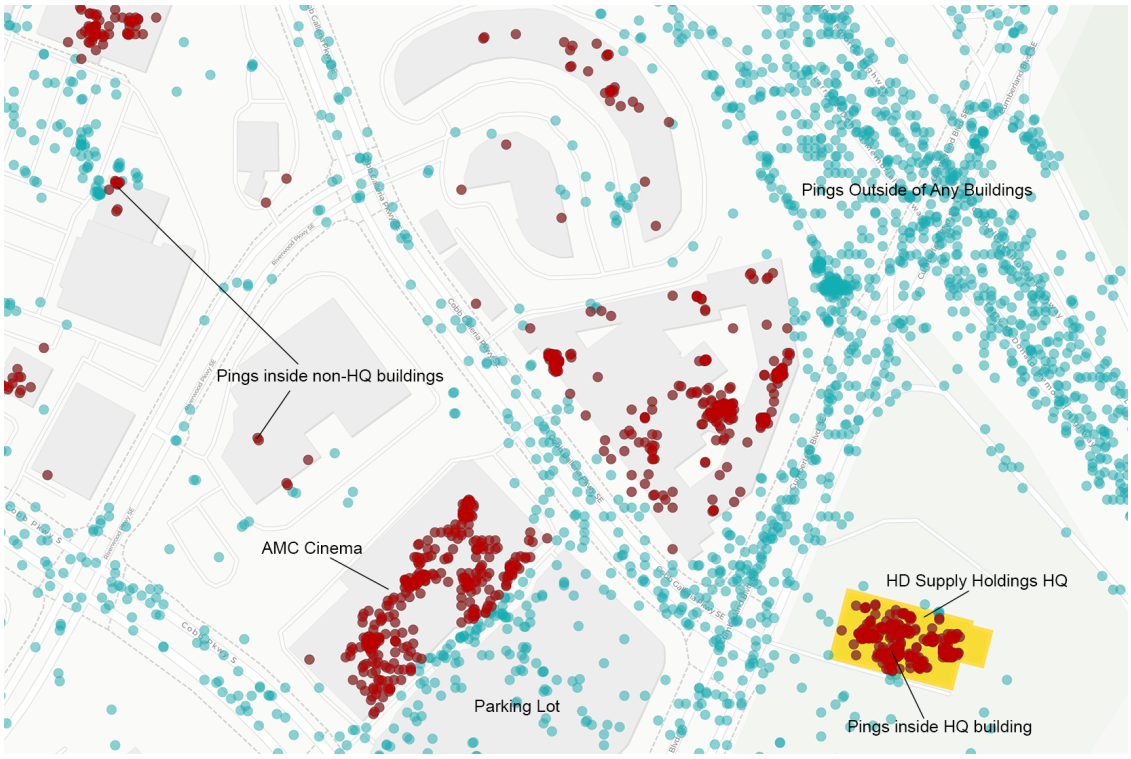
Figure 1: Illustrative Examples of Device Visits

Panel A illustrates the spatial distribution of visits to buildings during a typical workday from 7 am to 7 pm in the Atlanta MSA. The red hexagonal bins represent pings from SEC devices, while the blue hexagonal bins represent pings from other devices, with darker blue shades indicating a higher concentration of pings inside buildings within each 1-kilometer radius bin. Black markers indicate the locations of Corporate Headquarters, and the yellow marker in the center of the figure denotes the location of the Atlanta SEC office. This panel highlights the amount of noise we filter out. Panel B illustrates how pings are captured for an example firm's headquarters. All gray shapes are building that do not house firm headquarters. Cellphone pings must be within 5-meter of the HQ shapefile to be captured. In this particular example, we capture pings appear inside the HD Supply Holdings Headquarter building polygon. Panel C displays the spatial distribution of median total unique working hours at the building level for two groups of devices over a typical calendar month. For the purpose of this illustration, we focus on buildings within a 200-meter perimeter of the SEC building. Panel C (a) includes all devices mapped to the Atlanta SEC building, and Panel C (b) includes all devices mapped to the Resurgens Plaza building. The height of each building polygon corresponds to the median total unique hours, with taller polygons indicating more hours. The building with the highest total unique hour count is selected, and the devices' work location is mapped to this building.

Panel A: Spatial Distribution of Visits by Device Type



Panel B: Example of Building Shapefile Capturing Pings



Panel C: Determination of Device-Building Mapping

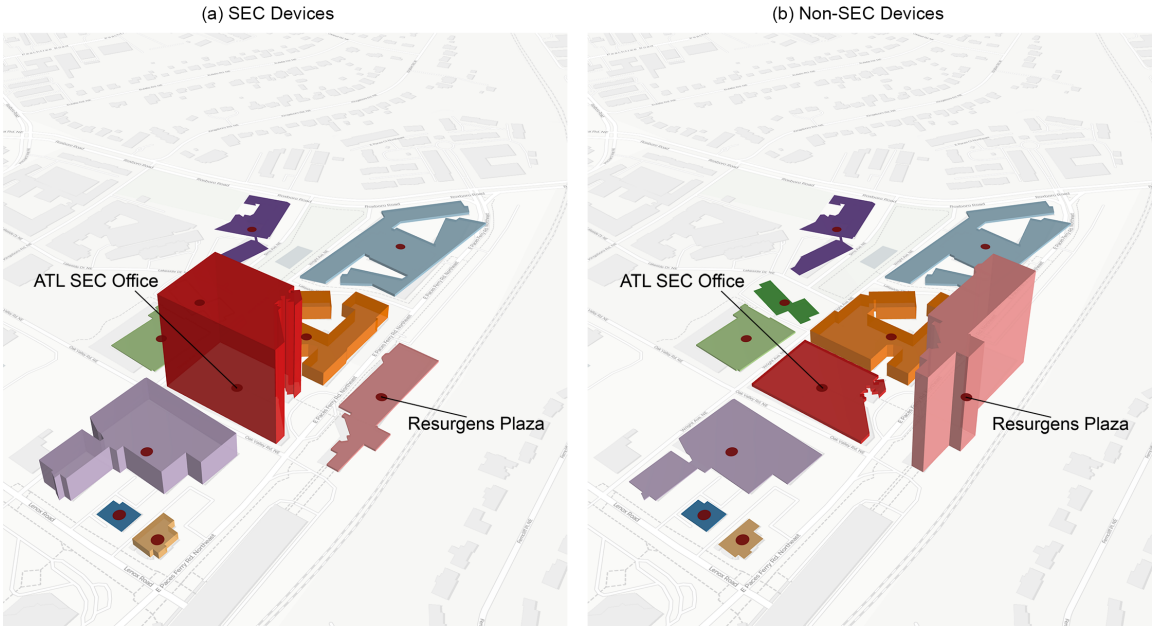
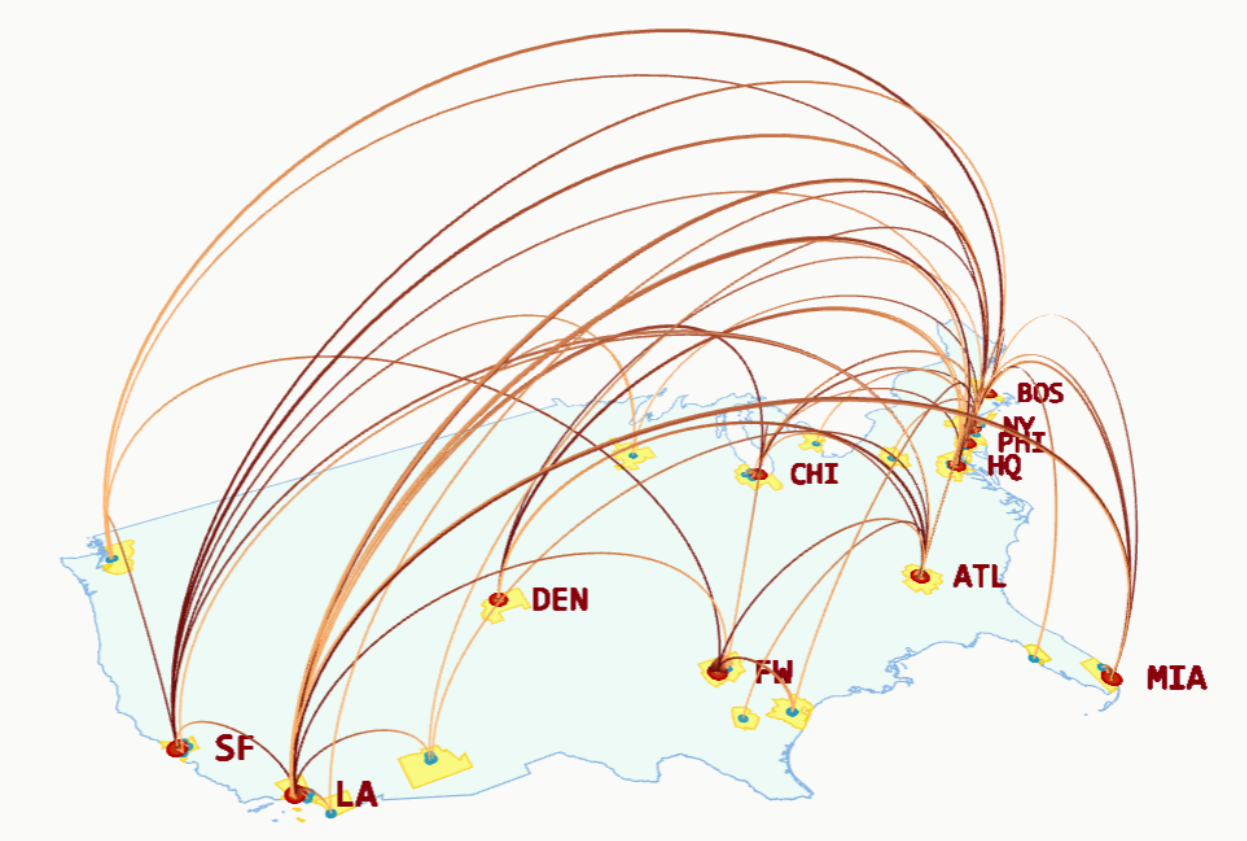


Figure 2: SEC Device Visits

The figures illustrate SEC device visits to firm headquarters in our sample. Panel A displays the national-level SEC-to-HQ flow map for visits happened during our sample period. Red markers represent SEC offices, blue markers indicate firm headquarters, while red-orange lines indicate SEC device visits to firm headquarters. Yellow regions denote MSAs with cellphone data coverage. If a red-orange line stretches from one region to another, this indicates an SEC device has done a cross-region visit. Panel B offers a detailed view of the Atlanta MSA, highlighting the SEC visit network during a typical month, with blue markers indicating visits from devices associated with any SEC office within this one-month period.

Panel A: Nationwide SEC Device Visits



Panel B: SEC Device Visits to Firm Headquarters – 1-Month Example (Atlanta)

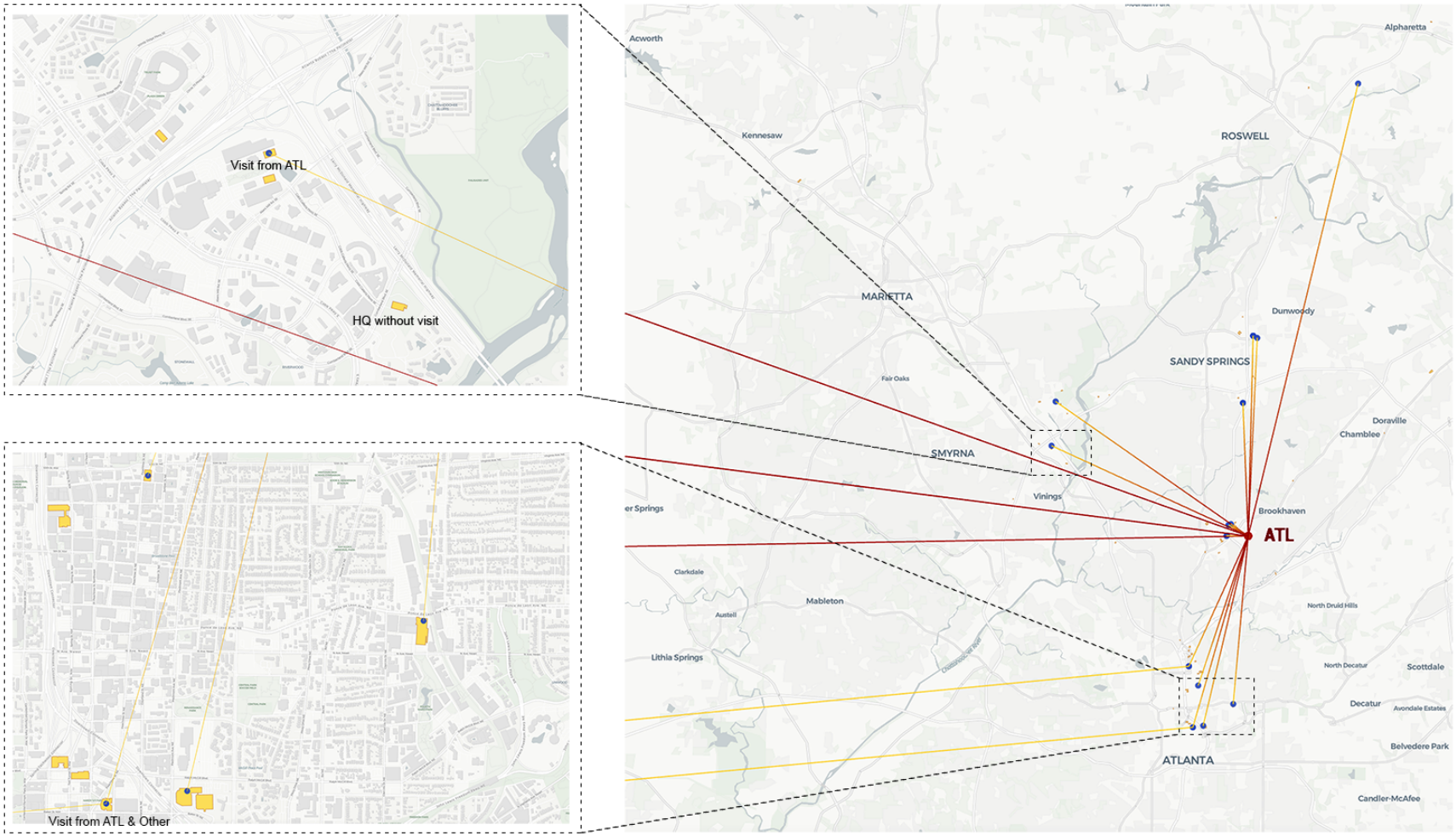


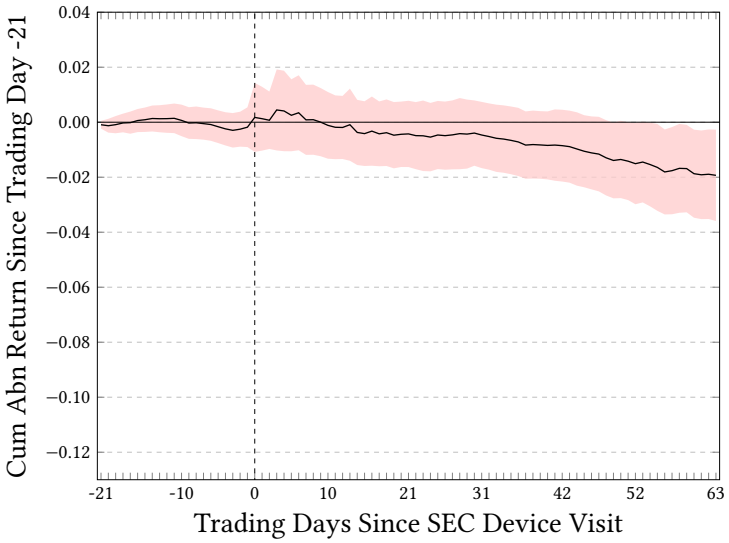
Figure 3: Abnormal Returns around SEC Device Visits

This figure presents coefficients and 95% confidence intervals for β_1 from the following regression framework:

$$Abn\ Ret_{i,-21\ to\ t} = \beta_1 SEC\ Device\ Visit_{i,0} + \sum_k \beta_k Firm\ controls_{i,q} + \gamma' FE + \epsilon,$$

where $Abn\ Ret_{i,-21\ to\ t}$ is the cumulative abnormal return of the stock for firm i from 21 trading days prior to an $SEC\ Device\ Visit$ until trading day t, which ranges from -21 (one month before the visit) to +63 (three months after). Panel A reports results using $Industry$ and $Date$ fixed effects while Panel B uses $Firm$ and $Date$ fixed effects. We cluster standard errors at the MSA-date level.

Panel A: Industry and Date Fixed Effects



Panel B: Firm and Date Fixed Effects

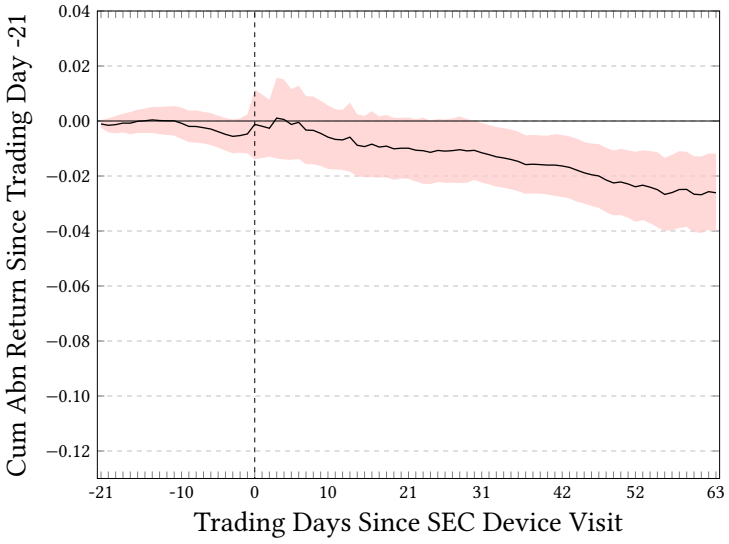
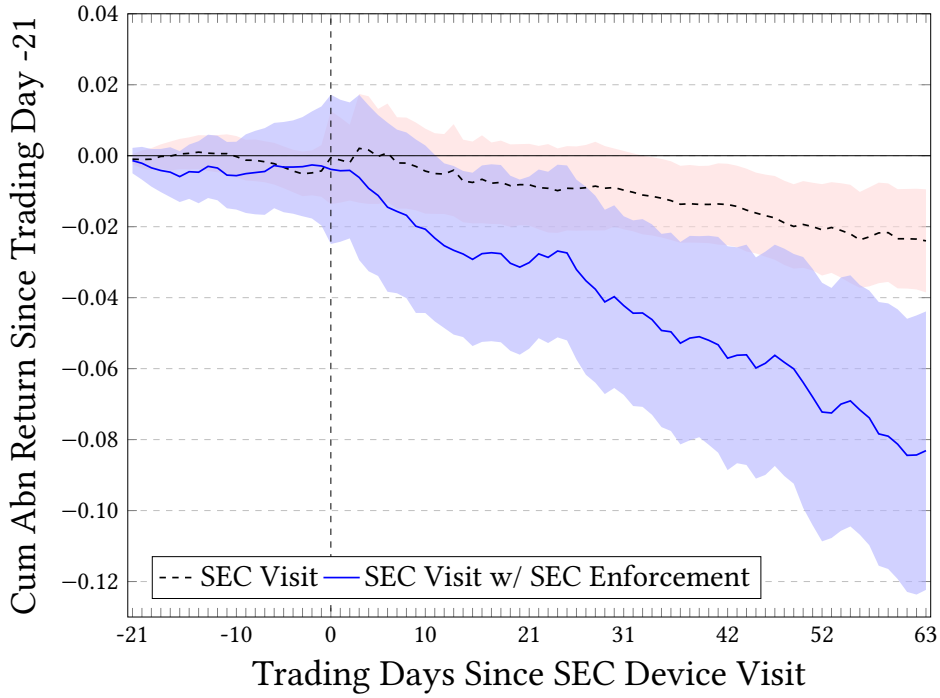


Figure 4: Abnormal Returns around SEC Device Visits for Firms with SEC Enforcement Cases
Panel A presents coefficients and 95% confidence intervals for β_1 and β_3 from the following expanding regression series:

$$Abn\ Ret_{i,-21\ to\ t} = \beta_1 SEC\ Device\ Visit_{i,0} + \beta_2 SEC\ Enf_i + \beta_3 SEC\ Device\ Visit_{i,0} \times SEC\ Enf_i + \sum_k \beta_k Firm\ controls_{i,q} + \gamma' FE + \epsilon$$

where $SEC\ Enf_i$ is equal to one if firm i has an SEC enforcement action filed against them during our sample period. All other variables are as described in previous figures and tables. Panel B reports results for various return windows starting on the day of an SEC device visit ($t = 0$). The regressions use *Firm* and *Date* fixed effects (subsuming β_2). We cluster standard errors at the MSA-date level.

Panel A: Expanding Regressions with Pre-Trends



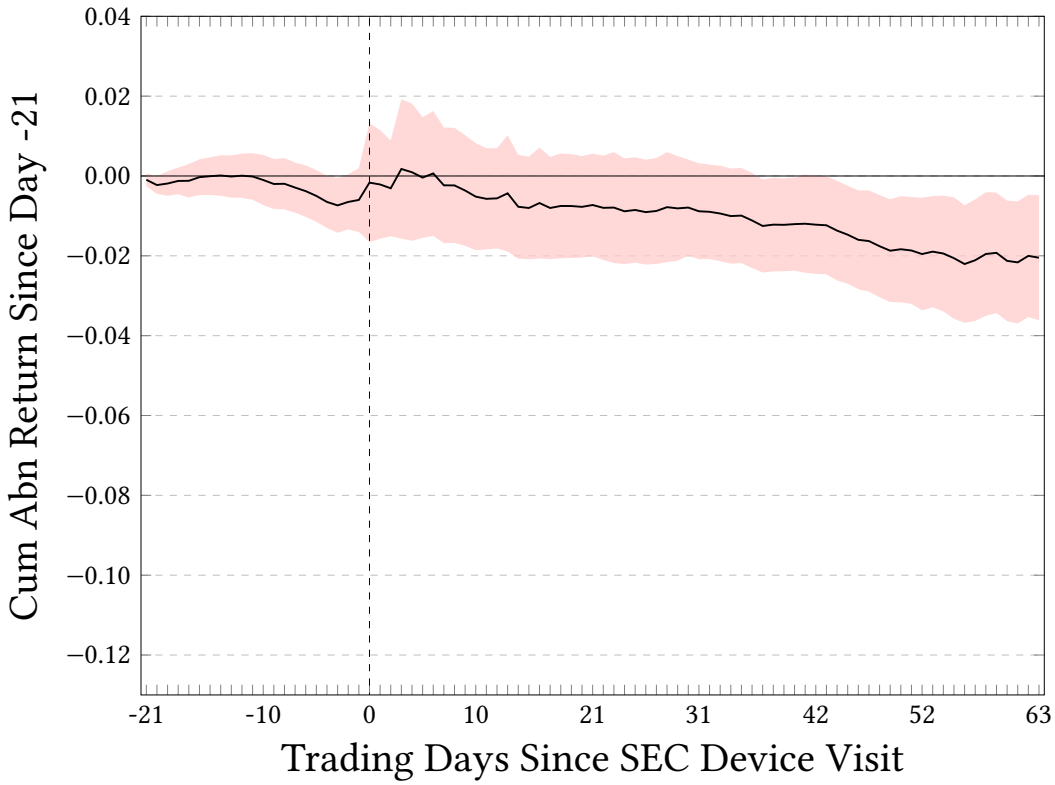
Panel B: Regression Coefficients, $Abn\ Ret_{0,t}$

	$Abn\ Ret_{0,10}$	$Abn\ Ret_{0,1mo}$	$Abn\ Ret_{0,2mo}$	$Abn\ Ret_{0,3mo}$
	(1)	(2)	(3)	(4)
SEC Device Visit	-0.0019	-0.0045	-0.0110**	-0.0172***
	(0.0036)	(0.0041)	(0.0047)	(0.0061)
SEC Device Visit × SEC Enf.	-0.0142*	-0.0202**	-0.0423***	-0.0621***
	(0.0077)	(0.0099)	(0.0116)	(0.0159)
R^2	0.058	0.103	0.176	0.235
Observations	640,438	639,588	637,633	635,512

Figure 5: Materiality - Excluding Formal Investigations

This figure presents further analysis of the cumulative abnormal returns around SEC device visits. In these tests, we exclude firms that have a formal SEC investigation that closes between 2019 and 2021. Panel A revisits the test in the second panel of Figure 3 and panel B revisits the tests in the second panel of Table 4.

Panel A: Expanding Regressions with Pre-Trends



Panel B: Regression Coefficients, $Abn\ Ret_{0,t}$

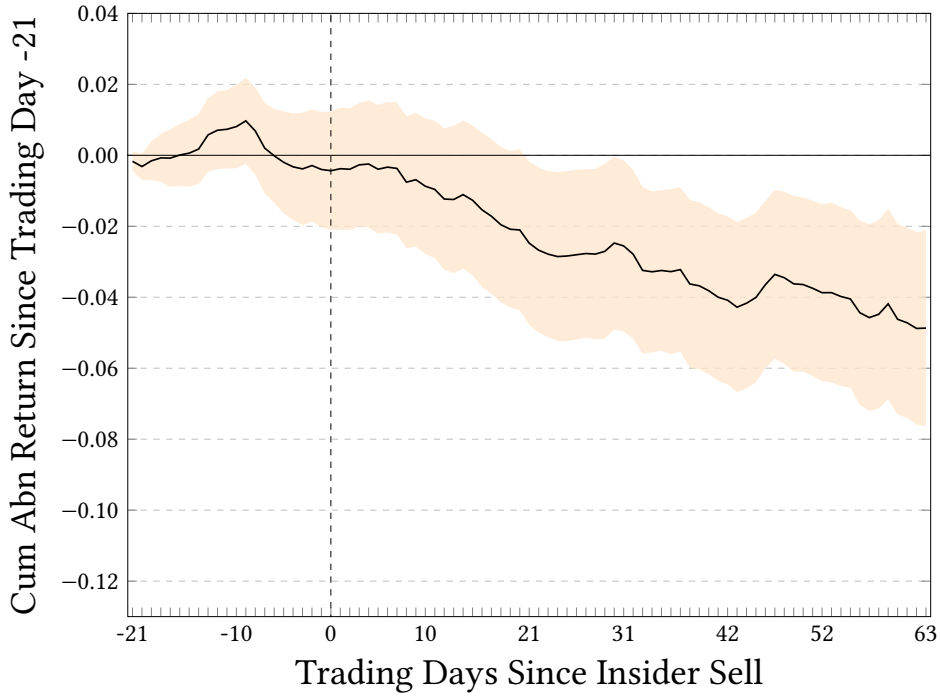
	$Abn\ Ret_{0,10}$	$Abn\ Ret_{0,1mo}$	$Abn\ Ret_{0,2mo}$	$Abn\ Ret_{0,3mo}$
	(1)	(2)	(3)	(4)
SEC Device Visit	-0.0014	-0.0026	-0.0090*	-0.0134**
	(0.0040)	(0.0045)	(0.0049)	(0.0066)
R^2	0.056	0.102	0.176	0.235
Observations	565,436	564,651	562,784	560,772

Figure 6: Abnormal Returns around SEC Device Visits that Coincide with Insider Sales
Panel A presents coefficients and 95% confidence intervals for β_1 from the following expanding regression series:

$$Abn\ Ret_{i,-21\ to\ t} = \beta_1 Insider\ Sell\ Around\ SEC\ Device\ Visit_{i,0} + \sum_k \beta_k Firm\ controls_{i,q} + \gamma' FE + \epsilon,$$

where $Insider\ Sell\ Around\ SEC\ Device\ Visit_{i,0}$ is equal to one if a firm insider sells shares within five trading days before or after the firm is visited by an SEC device. All other variables are as described in previous figures and tables. We restrict the sample to instances when an insider sale takes place. Panel B reports results for various return windows starting on the day of an insider sell ($t = 0$). The regressions use $Firm$ and $Date$ fixed effects. We cluster standard errors at the MSA-date level.

Panel A: Expanding Regressions with Pre-Trends



Panel B: Regression Coefficients, $Abn\ Ret_{0,t}$

	$Abn\ Ret_{0,10}$	$Abn\ Ret_{0,1mo}$	$Abn\ Ret_{0,2mo}$	$Abn\ Ret_{0,3mo}$
	(1)	(2)	(3)	(4)
Insider Sale around Visit	-0.0028	-0.0177**	-0.0296***	-0.0338***
	(0.0047)	(0.0078)	(0.0097)	(0.0122)
R^2	0.247	0.280	0.370	0.449
Observations	21,389	21,373	21,300	21,245

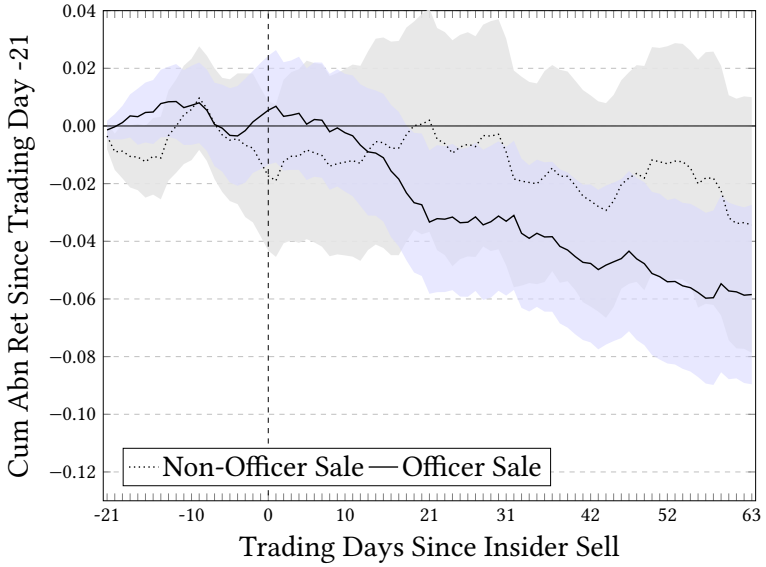
Figure 7: Abnormal Returns around SEC Device Visits that Coincide with Officer and Non-officer Sales

Panel A presents coefficients and 95% confidence intervals for β_1 from the following expanding regression series:

$$Abn\ Ret_{i,-21\ to\ t} = \beta_1 Insider\ Sell\ Around\ SEC\ Device\ Visit_{i,0} + \sum_k \beta_k Firm\ controls_{i,q} + \gamma' FE + \epsilon.$$

We present two sets of regressions in Panel A: the solid line represents returns when officers of the firm sell and the dotted line represents insiders who are not officers of the firm. We restrict the sample to instances when an insider sale takes place. Panel B reports results for various return windows starting on the day of an officer or non-officer sell ($t = 0$). The regressions use *Firm* and *Date* fixed effects. We cluster standard errors at the MSA-date level.

Panel A: Expanding Regressions with Pre-Trends



Panel B: Regression Coefficients, $Abn\ Ret_{0,t}$

	$Abn\ Ret_{0,10}$	$Abn\ Ret_{0,1mo}$	$Abn\ Ret_{0,2mo}$	$Abn\ Ret_{0,3mo}$
	(1)	(2)	(3)	(4)
Officer Sale around Visit	-0.0061	-0.0347***	-0.0466***	-0.0530***
	(0.0051)	(0.0092)	(0.0116)	(0.0145)
R^2	0.247	0.280	0.370	0.449
Observations	21,389	21,373	21,300	21,245
Non-Officer Sale around Visit	0.0060	0.0181*	-0.0015	-0.0081
	(0.0075)	(0.0102)	(0.0137)	(0.0173)
R^2	0.247	0.280	0.370	0.449
Observations	21,389	21,373	21,300	21,245

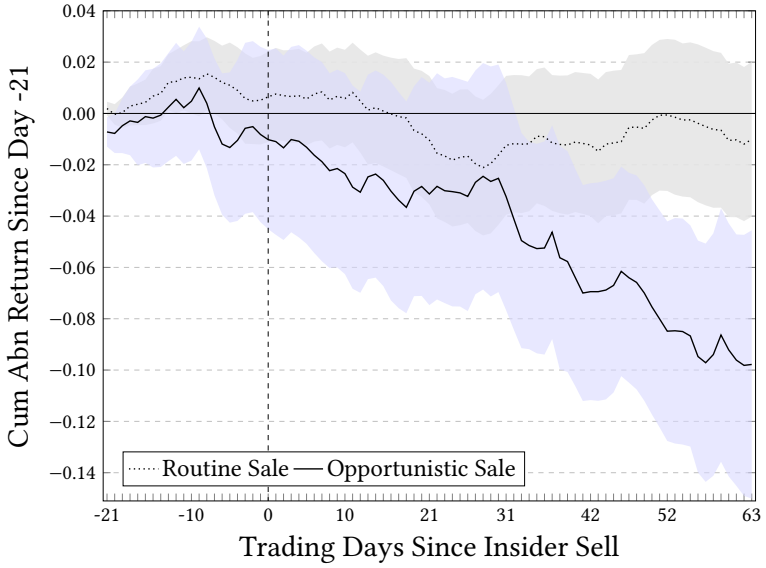
Figure 8: Abnormal Returns around SEC Device Visits that Coincide with Opportunistic and Routine Insider Trades

Panel A presents coefficients and 95% confidence intervals for β_1 from the following expanding regression series:

$$Abn\ Ret_{i,-21\ to\ t} = \beta_1 Insider\ Sell\ Around\ SEC\ Device\ Visit_{i,0} + \sum_k \beta_k Firm\ controls_{i,q} + \gamma' FE + \epsilon,$$

where $Insider\ Sell\ Around\ SEC\ Device\ Visit_{i,0}$ is equal to one if a firm insider sells shares within five trading days before or after the firm is visited by an SEC device. The solid line displays the results when looking at insider sales by opportunistic traders. The dotted line represents insider sales by routine traders. Panel B reports results for various return windows starting on the day of an opportunistic or routine sell ($t = 0$). Both series of regressions use $Firm$ and $Date$ fixed effects and cluster standard errors at the MSA-date level.

Panel A: Expanding Regressions with Pre-Trends



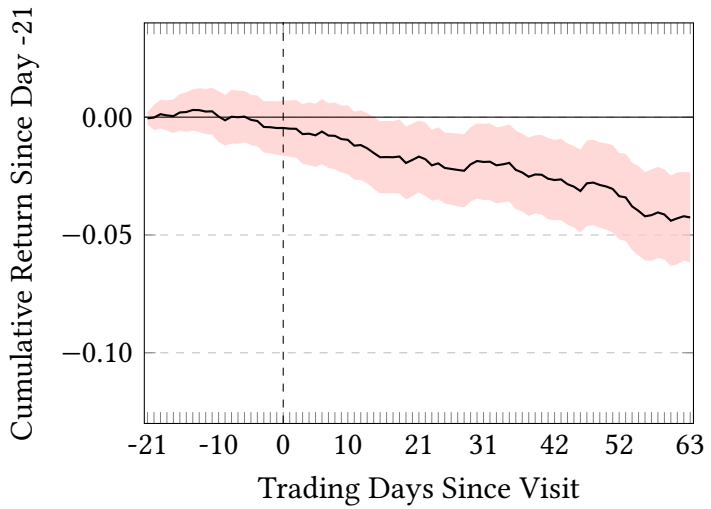
Panel B: Regression Coefficients, $Abn\ Ret_{0,t}$

	$Abn\ Ret_{0,10}$	$Abn\ Ret_{0,1mo}$	$Abn\ Ret_{0,2mo}$	$Abn\ Ret_{0,3mo}$
	(1)	(2)	(3)	(4)
Opp. Sale around Visit	-0.0102	-0.0167	-0.0459**	-0.0690***
	(0.0090)	(0.0148)	(0.0179)	(0.0244)
R^2	0.281	0.312	0.420	0.496
Observations	11,124	11,113	11,070	11,044
Rout. Sale around Visit	0.0010	-0.0146*	-0.0143	-0.0099
	(0.0053)	(0.0084)	(0.0111)	(0.0124)
R^2	0.245	0.282	0.334	0.416
Observations	11,193	11,187	11,157	11,128

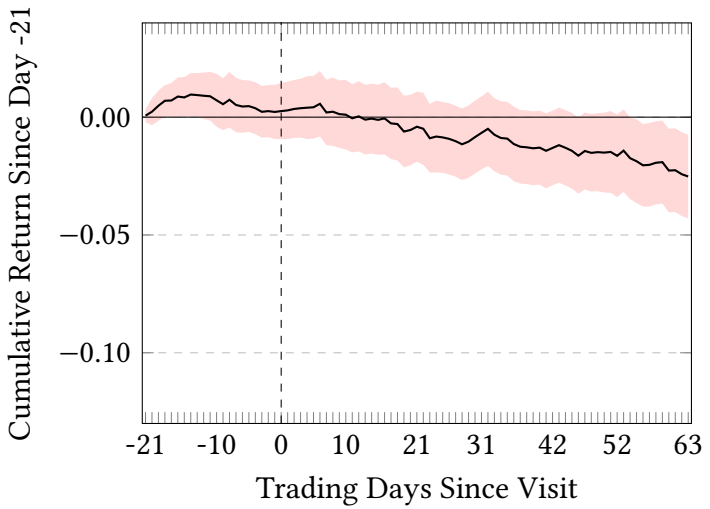
Figure 9: Event Study Analysis of Standalone Headquarters Buildings

This figure presents robustness tests of the materiality of SEC device visits and insider sells around SEC device visits. In Panels A and C, we exclude firms that are co-located in buildings with a registered investment adviser. In Panels B and D, we exclude firms that are co-located with other public firms.

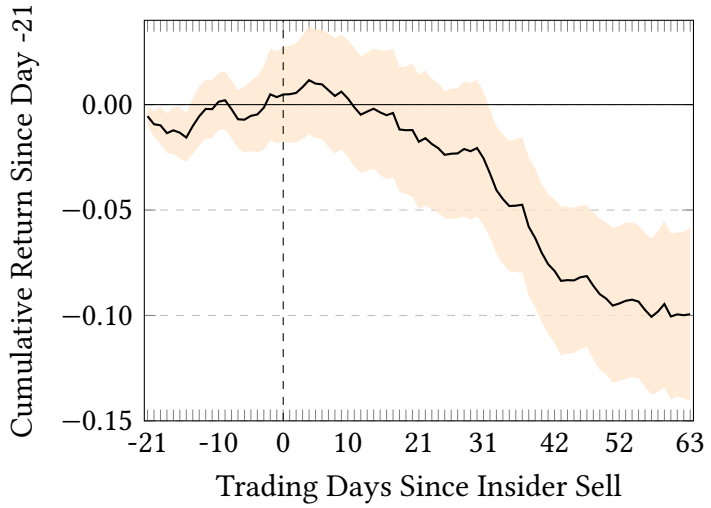
Panel A: Abnormal Returns - Excluding Firms Co-located with registered investment advisers



Panel B: Abnormal Returns - Excluding Firms Co-located with other Public Firms



Panel C: Insider Sell Performance - Excluding Firms Co-located with registered investment advisers



Panel D: Insider Sell Performance - Excluding Firms Co-located with other Public Firms

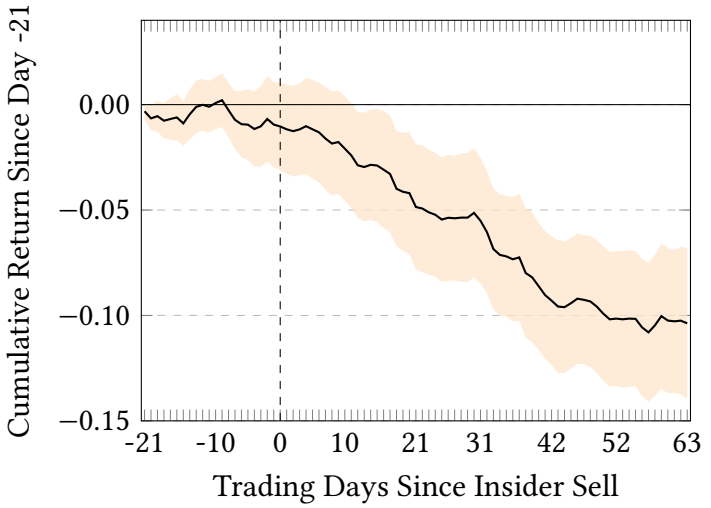


Table 1: **Regional Distribution of Firm Headquarters**
This table presents summary statistics by MSA for the firms included in our sample. For each MSA, we report the proportion of firms that are visited at least once in our sample, the total number of firms headquartered in the area, the nearest SEC location, and the median distance to the nearest SEC office among the firms headquartered in the MSA.

MSA	% Visited	Firms	Nearest SEC Office	SEC Dist (km)
Atlanta-Sandy Springs-Roswell, GA	41.3	75	Atlanta	9.8
Austin-Round Rock, TX	2.6	39	Fort Worth	277.1
Baltimore-Columbia-Towson, MD	7.7	26	SEC Headquarters	55.0
Boston-Cambridge-Newton, MA-NH	7.7	220	Boston	16.9
Charlotte-Concord-Gastonia, NC-SC	0.0	32	Atlanta	354.2
Chattanooga, TN-GA	0.0	6	Atlanta	152.7
Chicago-Naperville-Elgin, IL-IN-WI	21.6	102	Chicago	31.4
Dallas-Fort Worth-Arlington, TX	24.1	137	Fort Worth	50.5
Denver-Aurora-Lakewood, CO	10.0	60	Denver	18.2
Detroit-Warren-Dearborn, MI	2.6	39	Chicago	371.2
Houston-The Woodlands-Sugar Land, TX	7.0	171	Fort Worth	377.0
Los Angeles-Long Beach-Anaheim, CA	8.9	169	Los Angeles	26.1
Miami-Fort Lauderdale-West Palm Beach, FL	16.7	66	Miami	39.8
Minneapolis-St. Paul-Bloomington, MN-WI	1.7	60	Chicago	573.1
New York-Newark-Jersey City, NY-NJ-PA	41.0	449	New York	6.5
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	9.6	104	Philadelphia	27.8
Phoenix-Mesa-Scottsdale, AZ	4.2	48	Los Angeles	587.6
Pittsburgh, PA	2.6	39	SEC Headquarters	309.4
Portland-Vancouver-Hillsboro, OR-WA	0.0	21	San Francisco	859.4
Riverside-San Bernardino-Ontario, CA	0.0	4	Los Angeles	68.0
San Diego-Carlsbad, CA	1.1	90	Los Angeles	159.6
San Francisco-Oakland-Hayward, CA	4.5	177	San Francisco	27.7
Seattle-Tacoma-Bellevue, WA	9.8	51	San Francisco	1091.8
St. Louis, MO-IL	0.0	24	Chicago	426.0
Tampa-St. Petersburg-Clearwater, FL	0.0	25	Miami	337.8
Washington-Arlington-Alexandria, DC-VA-MD-WV	32.4	108	SEC Headquarters	19.5
Total	17.0	2342		

Table 2: **Descriptive Statistics**
This table presents descriptive statistics for variables used in the analysis. Panel A presents the distribution of key variables used in our panel regression setting. Panel B reports descriptive statistics about the frequency of visits among visited firms. Panel C reports univariate comparisons between visited and non-visited firms. See Appendix A for definitions of variables.

Panel A: Descriptive Statistics

	Median	Mean	SD
SEC Device Visit	0.000	0.002	0.050
$Ins\ Sell_{-5,+5}$	0.000	0.175	0.380
$\#\ Ins\ Sell_{-5,+5}$	0.000	0.487	1.616
$Ins\ Buy_{-5,+5}$	0.000	0.059	0.235
$\#\ Ins\ Buy_{-5,+5}$	0.000	0.155	1.003
$Abn\ Ret_{0,10}$	-0.006	-0.004	0.129
$Abn\ Ret_{0,1mo}$	-0.014	-0.011	0.185
$Abn\ Ret_{0,2mo}$	-0.030	-0.025	0.267
$Abn\ Ret_{0,3mo}$	-0.046	-0.037	0.321
Size	6.938	6.852	2.259
Leverage	0.259	0.304	0.323
Book-to-market	1.446	2.272	2.365
Turnover	12.902	12.820	0.997
Distance to nearest SEC office	3.624	3.712	1.691

Panel B: Frequency of Visits

	p1	p25	p50	mean	p75	p99
Firms						
Days visited by SEC Device	1	1	2	3.98	4	25
# unique SEC Devices	1	1	1	2.38	3	10
SEC Device						
# Firms visited	1	1	1	3.05	3	25

Panel C: Univariate Differences

	Visited		Not Visited		Difference	
	N	Mean	N	Mean	Mean	p-value
Firm Characteristics						
Size	398	7.41	1944	6.62	0.79	0.00
Leverage	398	0.31	1944	0.26	0.06	0.00
Book-to-market	398	2.16	1944	2.23	-0.07	0.59
Turnover	398	12.79	1944	12.85	-0.06	0.27
Distance to nearest SEC office	398	2.38	1944	3.96	-1.58	0.00
Prior to Sample						
# of SEC Investigations	398	0.48	1944	0.46	0.02	0.79
SEC Enforcement	398	0.09	1944	0.03	0.05	0.00
# of SEC Enforcements	398	0.23	1944	0.07	0.16	0.00
During Sample						
SEC Investigation	398	0.11	1944	0.07	0.04	0.01
SEC Enforcement	398	0.02	1944	0.01	0.01	0.06
# of SEC Enforcements	398	0.03	1944	0.01	0.02	0.03
Post Sample						
SEC Investigation	398	0.09	1944	0.07	0.02	0.19
SEC Enforcement	398	0.06	1944	0.03	0.03	0.01
# of SEC Enforcements	398	0.10	1944	0.05	0.05	0.02

Table 3: **Predicting SEC Visits**

This table reports tests for whether firm characteristics are associated with SEC device visits. The dependent variable is equal to one if an SEC Device pings within a firm headquarter during the quarter, zero otherwise, following the methodology outlined in Section 2. *Size* is the log of total assets. *Leverage* is the ratio of total debts to total assets. *Prior SEC Enforcement* is equal to one if the firm previously received one or more SEC enforcement actions, and zero otherwise. *Accounting Restatement* is equal to one if the firm issued a restatement in the prior 4 quarters, and zero otherwise. *Q Score* is equal to one if the firm have never had "4" in the first post-decimal digit of quarterly EPS in the past five years and zero otherwise, following Malenko et al. (2023). *Regulation Intensity* is the log of the estimated total hours a firm spends on compliance, following Kalmenovitz (2023). *Industry Sweep* is the log of the number of visits SEC devices make to *other* firms in the focal firm's industry. *Nearest SEC Office Visits* is the log of the number of visits the nearest SEC office makes to *other* firms. *RIA HQ* is equal to one if there is a RIA headquartered in the building, zero otherwise. *Distance to nearest SEC office* is the natural log of the distance to the nearest SEC office. *Proximate15* and *Proximate100* are equal to one if the firm is located within 15 and 100 kilometers from a SEC office, respectively. Robust standard errors are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

	(1) I(SEC Visit)	(2) I(SEC Visit)	(3) I(SEC Visit)	(4) I(SEC Visit)
Size	0.0069***	0.0069***	0.0071***	0.0072***
	(0.001)	(0.001)	(0.001)	(0.001)
Leverage	0.0049	0.0056	0.0034	0.0037
	(0.009)	(0.009)	(0.009)	(0.009)
Prior SEC Enforcement	0.0239*	0.0240*	0.0196	0.0199
	(0.013)	(0.013)	(0.013)	(0.013)
Accting Restatement 4qtrs	-0.0066	-0.0064	-0.0050	-0.0048
	(0.008)	(0.008)	(0.008)	(0.008)
Q Score	0.0105	0.0107	0.0075	0.0077
	(0.014)	(0.014)	(0.014)	(0.014)
Regulation Intensity	0.0009	0.0006	0.0024	0.0022
	(0.007)	(0.007)	(0.007)	(0.007)
Industry Sweep	0.0082***	0.0075***	0.0081***	0.0053**
	(0.002)	(0.002)	(0.002)	(0.002)
Nearest SEC Office Visits	0.0237***	0.0234***	0.0148***	0.0011
	(0.001)	(0.001)	(0.003)	(0.003)
RIA HQ	0.1074***	0.1078***	0.1054***	0.1068***
	(0.007)	(0.007)	(0.007)	(0.007)
Distance to nearest SEC office	-0.0017	-0.0016	-0.0076	-0.0079
	(0.004)	(0.004)	(0.006)	(0.006)
Proximate15	0.1195***	0.1198***	0.1047***	0.1044***
	(0.010)	(0.010)	(0.012)	(0.012)
Proximate100	0.0070	0.0075	0.0230	0.0227
	(0.010)	(0.010)	(0.014)	(0.014)
Year-Qtr FE		Yes		Yes
MSA FE			Yes	Yes
R^2	0.178	0.178	0.186	0.188
Observations	11200	11200	11200	11200

Table 4: **Materiality of SEC Device Visits**

This table reports tests of whether SEC device visits to firm headquarters have a material effect on the firm's stock price. $Abn\ Ret_{0,t}$ is the stock's return relative to the CRSP value-weighted index from the day an SEC device visits the firm until day *t*. *SEC Device Visit* is equal to one if a phone identified as an SEC Device pings inside of a firm's headquarters, and zero otherwise. The regressions include controls for firm size, leverage, book-to-market, turnover, and distance to the nearest SEC office. Standard errors, clustered at the MSA-date level, are reported in parentheses. *, **, and *** denote significance at the 10%, 5%, and 1% levels, respectively.

Panel A: Industry FE

	$Abn\ Ret_{0,10}$	$Abn\ Ret_{0,1mo}$	$Abn\ Ret_{0,2mo}$	$Abn\ Ret_{0,3mo}$
	(1)	(2)	(3)	(4)
SEC Device Visit	-0.0013	-0.0033	-0.0077	-0.0140**
	(0.0035)	(0.0041)	(0.0051)	(0.0066)
Controls	Yes	Yes	Yes	Yes
Date FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
R^2	0.019	0.023	0.027	0.027
Observations	640,986	640,081	637,948	635,665

Panel B: Firm FE

	$Abn\ Ret_{0,10}$	$Abn\ Ret_{0,1mo}$	$Abn\ Ret_{0,2mo}$	$Abn\ Ret_{0,3mo}$
	(1)	(2)	(3)	(4)
SEC Device Visit	-0.0028	-0.0057	-0.0131***	-0.0194***
	(0.0034)	(0.0039)	(0.0046)	(0.0059)
Controls	Yes	Yes	Yes	Yes
Date FE	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes
R^2	0.057	0.102	0.175	0.234
Observations	640,986	640,081	637,948	635,665

Table 5: **SEC Formal Investigations**

This table reports tests of whether SEC device visits to firm headquarters have a differential effect on firms that are under a formal investigation. $Abn\ Ret_{0,t}$ is the stock's return relative to the CRSP value-weighted index from the day an SEC device visits the firm until day *t*. *SEC Device Visit* is equal to one if a phone identified as an SEC Device pings inside of a firm's headquarters, and zero otherwise. *Formal Investigation* is equal to one for firms that are under a formal investigation that closed between 2019 and 2021, and zero otherwise. The regressions include controls for firm size, leverage, book-to-market, turnover, and distance to the nearest SEC office. Standard errors, clustered at the MSA-date level, are reported in parentheses. *, **, and *** denote significance at the 10%, 5%, and 1% levels, respectively.

	$Abn\ Ret_{0,10}$ (1)	$Abn\ Ret_{0,1mo}$ (2)	$Abn\ Ret_{0,2mo}$ (3)	$Abn\ Ret_{0,3mo}$ (4)
SEC Device Visit	-0.0014	-0.0028	-0.0096*	-0.0148**
	(0.0040)	(0.0045)	(0.0049)	(0.0066)
SEC Device Visit × Formal Investigation	-0.0087	-0.0177**	-0.0211**	-0.0273**
	(0.0059)	(0.0080)	(0.0102)	(0.0113)
Controls	Yes	Yes	Yes	Yes
Date FE	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes
R^2	0.057	0.102	0.175	0.234
Observations	640,986	640,081	637,948	635,665

Table 6: **Insider Trades around SEC Device Visit**

This table reports tests of SEC headquarter visits on the propensity of firm insiders to sell shares in their firm. *SEC Device Visit* is equal to one if a phone identified as an SEC Device pings inside of a firm's headquarters, and zero otherwise. $Ins\ Sell_{-5,+5}$ ($Ins\ Buy_{-5,+5}$) is an indicator variable equal to one if a firm insider sells (purchases) shares in the two week period, and $\#\ Ins\ Sell_{-5,+5}$ ($\#\ Ins\ Buy_{-5,+5}$) is the number of days insiders sell (purchase) shares. Firm-level control variables from Table 4 are included. Standard errors, clustered at the MSA-date level, are reported in parentheses. *, **, and *** denote significance at the 10%, 5%, and 1% levels, respectively.

	Sales		*Purchases*	
	$Ins\ Sell_{-5,+5}$	$\#\ Ins\ Sell_{-5,+5}$	$Ins\ Buy_{-5,+5}$	$\#\ Ins\ Buy_{-5,+5}$
	(1)	(2)	(3)	(4)
SEC Device Visit	-0.0289***	-0.4292***	0.0079	0.1090
	(0.0083)	(0.0680)	(0.0061)	(0.1361)
Controls	Yes	Yes	Yes	Yes
Date FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
R^2	0.113	0.128	0.024	0.067
Observations	641,694	641,694	641,694	641,694

Table 7: **Insider Trading — Heterogeneous Effects**

This table reports the results from regressing our insider trading variables on *SEC Device Visit* for officers and non-officers separately and for opportunistic vs routine traders following Cohen et al. (2012). Firm-level control variables from Table 4 are included. Standard errors, clustered at the MSA-date level, are reported in parentheses. *, **, and *** denote significance at the 10%, 5%, and 1% levels, respectively.

Panel A: Insider Sales – Officers vs Non-Officers

	$Officers$		$Non-Officers$	
	$Ins\ Sell_{-5,+5}$	$\#\ Ins\ Sell_{-5,+5}$	$Ins\ Sell_{-5,+5}$	$\#\ Ins\ Sell_{-5,+5}$
	(1)	(2)	(3)	(4)
SEC Device Visit	-0.0294***	-0.4733***	-0.0095*	-0.3237***
	(0.0079)	(0.0786)	(0.0055)	(0.1216)
Controls	Yes	Yes	Yes	Yes
Date FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
R^2	0.109	0.149	0.040	0.064
Observations	641,694	641,694	641,694	641,694

Panel B: Insider Sales – Opportunistic vs Routine Traders

	$Opportunistic$		$Routine$	
	$Ins\ Sell_{-5,+5}$	$\#\ Ins\ Sell_{-5,+5}$	$Ins\ Sell_{-5,+5}$	$\#\ Ins\ Sell_{-5,+5}$
	(1)	(2)	(3)	(4)
SEC Device Visit	-0.0219***	-0.4837***	-0.0219***	-0.3912***
	(0.0066)	(0.1011)	(0.0073)	(0.0893)
Controls	Yes	Yes	Yes	Yes
Date FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
R^2	0.066	0.104	0.090	0.150
Observations	641,694	641,694	641,694	641,694

Table 8: **Analysis of Standalone Headquarters Buildings**
This table repeats the main tests from Table 4 and Table 6 while excluding firms in shared buildings. As explained in Section 7, Columns (1) and (2) drop firms in buildings shared with RIA HQs and Columns (3) and (4) drop firms headquartered in a building shared with at least one other public firm.

Panel A: Materiality of SEC Visits

	RIA HQs		Shared Buildings	
	$Abn\ Ret_{0,2mo}$	$Abn\ Ret_{0,3mo}$	$Abn\ Ret_{0,2mo}$	$Abn\ Ret_{0,3mo}$
	(1)	(2)	(3)	(4)
SEC Device Visit	-0.0230***	-0.0310***	-0.0145**	-0.0180**
	(0.0072)	(0.0086)	(0.0071)	(0.0083)
Controls	Yes	Yes	Yes	Yes
Date FE	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes
R^2	0.174	0.234	0.174	0.239
Observations	508,362	506,379	475,734	474,055

Panel B: Insider Trades around SEC Visits

	RIA HQs		Shared Buildings	
	$Ins\ Sell_{-5,+5}$	$\#\ Ins\ Sell_{-5,+5}$	$Ins\ Sell_{-5,+5}$	$\#\ Ins\ Sell_{-5,+5}$
	(1)	(2)	(3)	(4)
SEC Device Visit	-0.0591***	-0.6374***	-0.0491***	-0.4098***
	(0.0135)	(0.1210)	(0.0160)	(0.1070)
Controls	Yes	Yes	Yes	Yes
Date FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
R^2	0.116	0.131	0.121	0.136
Observations	511,552	511,552	478,479	478,479

Internet Appendix for "Watching the Watchdogs: Tracking SEC Inquiries using Geolocation Data"

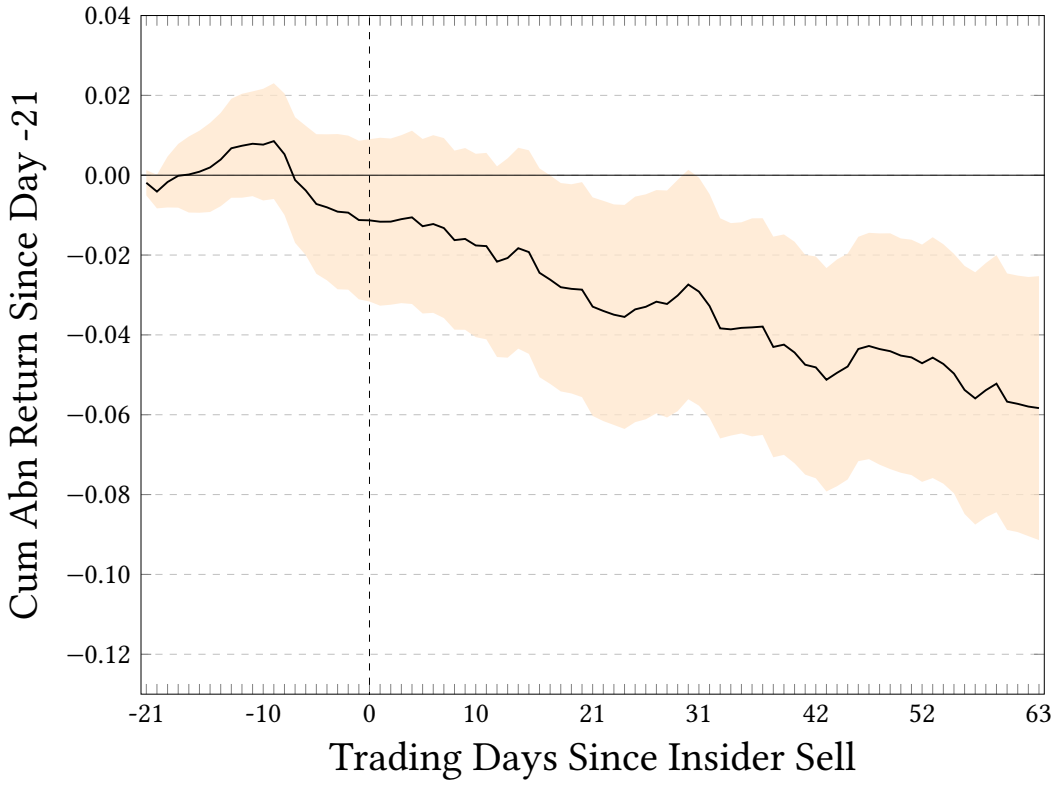
Appendix A Variable Definitions

Variable	Description
SEC Device Visit	1 if a firm is visited by an SEC Device, 0 otherwise
$Ins\ Sell_{-5,+5}$	1 if a firm insider sells shares in the previous five or subsequent five trading days, 0 otherwise
$\#\ Ins\ Sell_{-5,+5}$	Number of insider sales
$Ins\ Buy_{-5,+5}$	1 if a firm insider purchases shares in the previous five or subsequent five trading days
$\#\ Ins\ Buy_{-5,+5}$	Number of insider purchases
$Abn\ Ret_{0,t}$	Stock's return relative to the CRSP value-weighted index from the day an SEC device visits the firm until day t
$Size$	Log of total assets
$Leverage$	Ratio of total debts to total assets
Book-to-market	Book value of equity divided by market value of equity
$Turnover$	Log of the total shares traded in a quarter divided by common shares outstanding
Distance to nearest SEC office	Log of the distance in kilometers from the firm headquarters to the nearest SEC office
SEC Investigation	1 if the firm is under a formal SEC investigation, 0 otherwise
# of SEC Investigations	Number of formal SEC investigations via FOIA logs
SEC Enforcement	1 if the firm is the recipient of one or more SEC enforcement actions, 0 otherwise
# of SEC Enforcements	Number of SEC enforcement actions that have been filed against the firm.
Industry Sweep	log of the number of visits the SEC devices visit to *other* firms in the focal firm's industry
Nearest SEC Office Visits	log of the number of visits the nearest SEC office makes to *other* firms
RIA HQ	1 if there is a RIA headquartered in the building, 0 otherwise
Proximate15	1 if the firm is located within 15 kilometers from a SEC office, 0 otherwise
Proximate100	1 if the firm is located within 100 kilometers from a SEC office, zero otherwise
Accounting Restatement	1 if the firm issued a restatement in the prior 4 quarters, 0 otherwise
Q Score	1 if the firm has not ever had "4" in the first post-decimal digit of quarterly EPS in the past five years, 0 otherwise
Regulation Intensity	log of the estimated total hours a firm spends on compliance, from Kalmenovitz (2023)

Appendix B Additional Tables and Figures

Figure B1: Insider Sell Performance Around SEC Device Visits — Excluding Formal Investigations
This figure presents further analysis of the cumulative abnormal returns around SEC device visits that coincide with insider sales. In these tests, we exclude firms that have a formal SEC investigation that closed between 2019 and 2021.

Panel A: Expanding Regressions with Pre-Trends



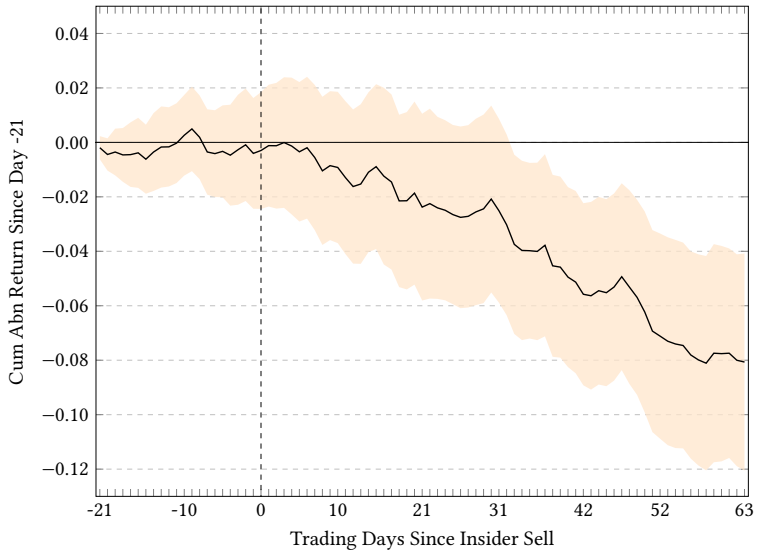
Panel B: Regression Coefficients, $Abn\ Ret_{0,t}$

	$Abn\ Ret_{0,10}$	$Abn\ Ret_{0,1mo}$	$Abn\ Ret_{0,2mo}$	$Abn\ Ret_{0,3mo}$
	(1)	(2)	(3)	(4)
Insider Sale around Visit	-0.0043	-0.0187**	-0.0286**	-0.0347**
	(0.0054)	(0.0090)	(0.0113)	(0.0147)
R^2	0.248	0.279	0.381	0.455
Observations	18,567	18,561	18,522	18,485

Figure B2: Abnormal Returns around SEC Device Visits that Coincide with Insider Sales — 10b5-1 and non-10b5-1 Classifications

This figure presents further analysis of the cumulative abnormal returns around SEC device visits that coincide with insider sells. Panel A revisits equation 7 with a sample of only 10b5-1 classified trades. Panel B revisits equation 7 with a sample of only non-10b5-1 classified trades.

Panel A: 10b5-1 Insider Sales



Panel B: Non-10b5-1 Insider Sales

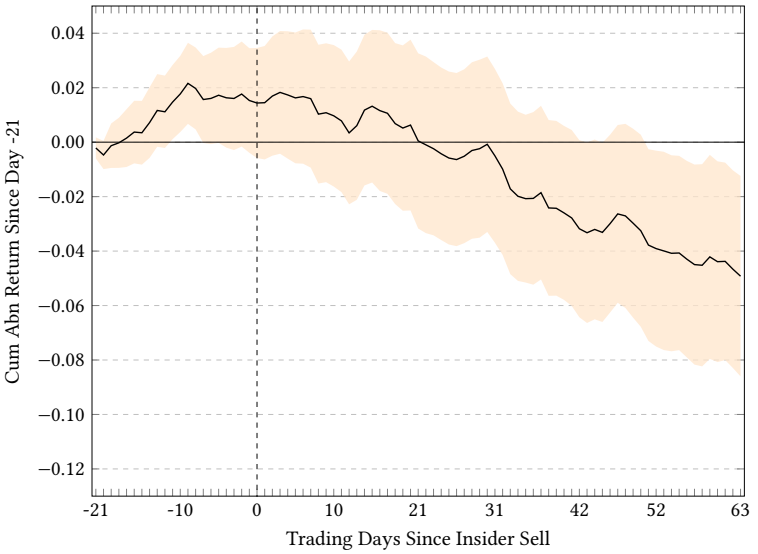


Table B1: **Insider Trades around SEC Device Visit with Alternative Measures**
This table recreates the tests shown in Table 6 but uses the conventional approach of logarithmic transformations. Specifically, we report the tests shown in Table 6 but instead use OLS and replace the dependent variables in Columns (2) and (4) with $ln(1 + x)$ for both $Ins\ Sell_{-5,+5}$ and $Ins\ Buy_{-5,+5}$.

	Sales	*Purchases*
	$Ln\ (\#\ Ins\ Sell_{-5,+5})$	$Ln\ (\#\ Ins\ Buy_{-5,+5})$
	(1)	(2)
SEC Device Visit	-0.0517***	0.0081
	(0.0094)	(0.0074)
Controls	Yes	Yes
Date FE	Yes	Yes
Industry FE	Yes	Yes
R^2	0.112	0.022
Observations	641,694	641,694