## **Catch Me If You Can:**

# Financial Misconduct around Corporate Headquarters Relocations

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#### Abstract

We find that financial misreporting activities are positively associated with the probability of headquarters relocation. Firms potentially conducting financial fraud are more likely to relocate to a location where the regional SEC office has less intense scrutiny against local firms, and to relocate without providing explicit reasons. Using shocks to SEC enforcement intensity for identification, we find that firms committing financial misconduct are more likely to relocate after the shock. Our results provide new evidence on the fraudulent motives for headquarters relocation, and suggest that the intensity of SEC enforcement affects corporate strategies.

*Keywords:* Headquarters Relocation; Enforcement; Regulation; SEC; Misreporting; Fraud; Earnings Management; Litigation; Geographic Proximity.

JEL classification: G34, G38, M48

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# I. Introduction

Approximately two percent of public firms in the U.S. relocate their headquarters to a different state or Metropolitan Statistical Area (MSA) each year. Moving headquarters often entails substantial costs, ranging from property acquisition and business interruptions to employee relocation, hiring, and training. According to Workwide ERC (the Workforce Mobility Association), companies spent \$12 billion on relocations in 2013 (approximately \$17 million per company). Relocations have immense consequence for a company's short-term continuity and attract the attention of the business world and the company's key stakeholders. Despite its importance, headquarters relocation has been generally overlooked in the finance and accounting literature.

Economic geography literature suggests that the choice of headquarters location is a tug-ofwar between the corporate need to be in proximity to customers, high-level professional services and infrastructure, and motives for cost and tax savings.<sup>1</sup> Headquarters relocation thus adds value to a firm and falls into a manager's value creation agenda. However, agency theories (Jensen and Meckling, 1976) suggest that managers can make corporate decisions that extract private benefits rather than maximize firm value. We explore the possibility that headquarters location is driven by managers' self-serving motives; specifically, we are interested in whether firms relocate to avoid the scrutiny by local SEC enforcement offices.

Regulatory enforcement intensity creates disutility to corporate managers, especially those who have been engaging in financial misconduct. Detected misconduct imposes tremendous costs to the firm, management and the board of directors (Srinivasan, 2005; Desai, Hogan, and Wilkins, 2006; Fich and Shivdasani, 2007; and Karpoff, Lee, Martin, 2008 a&b). Incentives for headquarters relocation may thus arise from scrutiny avoidance by firms committing financial misconduct. A firm's strategy of avoiding enforcement actions through relocation only works if there are frictions associated with regulatory monitoring. Such frictions may arise from two sources. The first is that enforcement actions are mostly conducted by SEC regional offices overseeing the firms' jurisdiction states. The cross-sectional variation in enforcement intensity across regional offices provides opportunities for firms to avoid scrutiny through relocation. The second is that

<sup>&</sup>lt;sup>1</sup> See "More U.S. corporations moving headquarters overseas for tax haven", by John McCarron, Chicago Tribune, May 1, 2014 for recent evidence on U.S. firms relocating headquarters overseas for tax saving purpose, and "Obama hits at companies moving overseas to avoid taxes" by Lori Montgomery, the Washington Post, September 22, 2014, for U.S. government new rules curbing such transactions.

enforcement is costly and regulators are constrained by their budget and staffing resources. The SEC regional offices need to strike a balance between their resource constraints and enforcement activities undertaken. Headquarters relocation disrupts the equilibrium of monitoring, resulting in increased costs for regulators to detect and investigate fraudulent activities. It thus creates an opportunity for firms to alter the likelihood of getting caught by regulators.

Using corporate headquarter information of all Compustat firms from 1994 to 2012, we find that headquarters relocations are positively associated with financial misreporting and earnings manipulation. A one standard deviation change in the fraud score, a measure of ex-ante likelihood of financial fraud developed by Dechow, Ge, Larson, and Sloan (2011), is associated with 0.16% higher likelihood of moving headquarters in the following year. Similarly, misreported (and later restated) earnings are associated with 0.12% higher likelihood of relocation. The economic magnitude is large, given that the unconditional probability of moving out-of-state and out-of-MSA is 1.47%. Our findings are robust to the inclusion of a set of control variables that measure the costs and needs for relocations as well as high dimensional fixed effects based on year, industry, and states to account for possible omitted variables. We further find that fraudulent firms tend to move into a SEC jurisdiction state with a history of weak enforcement. This evidence is consistent with the notion that firms relocate headquarters to avoid intense scrutiny by local SEC offices. Moreover, we find that firms are more likely to withhold information from the public and provide no explicit reason for their relocations in SEC filings if their financial statements suggest fraudulent activities. Interestingly, even though merger and major asset purchase are the most frequently quoted reasons for relocations, our regression results suggest that firms that conduct major acquisitions are less likely to relocate headquarters.

Our evidence suggests a strong association between financial misreporting and subsequent headquarters relocation, yet the endogeneity of both financial reporting and relocation decision may refrain us from drawing causal inferences. To pin point enforcement avoidance as the motive for corporate relocations, we identify exogenous variations (i.e., shocks) to local SEC scrutiny and examine corporate relocations that follow. We use two settings as potential sources of exogenous shocks to the scrutiny intensity of the local SEC office. The first shock is a sharp increase in recent SEC enforcement actions in the local area; the second shock is the arrival of a new external director at a regional SEC office with weak enforcement history. These shocks may be due to a change in budgetary and resources allocation, or to a change in the productivity or attitude of local SEC

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enforcement officers, neither of which is directly observed. They are exogenous to a firm's tendency to relocate out of the region. If financial misconduct indeed motivates firms to relocate, we should observe that firms with a higher likelihood of fraud tend to relocate in response to the SEC enforcement shocks. Interacting measures of financial misconduct and the shock indicator, we find that following an enforcement shock a firm is 0.36% more likely to relocate given a one standard deviation increase in fraud score, representing a 25% relative increase in the likelihood of relocation. The evidence confirms that scrutiny avoidance is an important motivation for corporate headquarters relocations. Our finding also suggests that SEC enforcement matters for corporate strategies and actions. The evidence that firms tend to relocate after observing the enforcement shocks suggests that SEC enforcement has a deterrence effect even though the regulatory body cannot catch all the fraudsters.

In exploring size and analyst coverage variations, we find that the relation between fraudulent activities and the probability of relocation is statistically stronger for small and mediumsize firms and firms with lower analyst coverage, suggesting that firms with weak external monitoring are more likely to relocate for financial misreporting motives. In addition to our main results on financial misconduct, we find evidence consistent with value creating motivations of headquarters relocations. Firms with weaker operating performance, lower market valuation, and weaker sales growth are more likely to relocate, perhaps using relocation as a strategy to reduce operating costs and boost revenue. Smaller and younger firms are more likely to relocate than large and old ones. Firms tend to avoid moving away from industry clusters due to the benefits associated with industry agglomeration, technology learning and specialization.

Finally, if firms relocate to avoid scrutiny we should find evidence that such a strategy enables them to achieve this goal. We study the changes in both the likelihood of financial misreporting and the incidence of such misconduct being caught by regulators or shareholders *after* headquarters relocations. Using a difference-in-differences design with a propensity score matched sample, we find that following relocations the likelihood of financial misreporting increases in firms that relocate (i.e., treated) compared to the matched sample of firms without relocation (i.e., control), and the treated firms are more likely to restate their financial statements prepared in earlier years after relocation. However, the treated firms are not more likely to get caught by either regulators or shareholders compared to the matched sample.

Our research contributes to the literature on corporate fraud, financial regulation, and headquarters location. First, prior studies document the economic and reputational penalties imposed on firms engaged in financial fraud. Our research unveils an opportunistic strategy that firms undertake to escape fraud detection and penalties. Headquarter relocation, a corporate decision that prior literature view as driven by corporate need, is found to serve the motive of financial fraud and scrutiny avoidance in some firms.

Second, our findings suggest that regulatory enforcement has a real effect on corporate decisions. Building off the emerging literature on the effect of regulatory bodies (e.g., Kedia and Rajgopal, 2011; Yu and Yu, 2011; Del Guercio, Odders-White, and Ready, 2014), we find that SEC enforcement matters; specifically, local SEC office leniency toward fraud investigation and enforcement has a direct impact on a firm's tendency to relocate. This evidence renders support for a centralized enforcement decision making on top of a localized enforcement process, which is consistent with recent SEC efforts of establishing a centralized review process for new investigations. Centralized planning, along with better allocation of resources and coordination among regional offices, would curb the benefits fraudulent firms can gain from opportunistic relocations.

Third, this paper sheds light on an important but overlooked corporate action—headquarters relocation – by studying the causes and consequences of relocation. Our research highlights a potential hidden cost of headquarters relocation: suppressed external monitoring mechanisms and, in turn, higher likelihood of corporate misconduct. The insights of our research will be of interest not only to academic researchers in finance and accounting, but also to regulators and practitioners. Bringing attention to the hidden cost of relocation can help regulators and other external monitors deter opportunistic relocations. This research can also aid budget-constrained regulators by helping them allocate resources towards firms that are most likely to commit fraud.

The rest of the paper is organized as follows. Section II describes background on SEC enforcement and the prior literature in detail. Section III describes the data and presents an overview of the sample. Section IV presents the specification of our empirical model and Section V shows the empirical results. Section VI concludes the paper.

#### **II. Background and Literature**

# A. SEC Enforcement

Recent GAO reports provide a comprehensive overview of the SEC enforcement process.<sup>2</sup> The process starts with initial leads obtained by the Enforcement Division staff through SEC surveillance activities (e.g. filings review conducted by the Division of Corporate Finance at SEC Washington D.C. home office<sup>3</sup>), self-regulatory organizations, investor tips, media reports, and other whistle-blowers. An informal inquiry is conducted to determine whether the evidence merits an investigation. Promising leads may directly result in a formal investigation. Once an investigation starts, enforcement staff will review records and interview witnesses. After collecting sufficient evidence and assessing the seriousness of the wrongdoing, enforcement staff will determine whether to recommend that the SEC authorize civil and/or administrative enforcement actions.<sup>4</sup>

SEC regulatory monitoring is not without frictions. Such frictions are twofold. The first is that SEC enforcement actions are local. As budgetary restrictions limit the ability of SEC enforcement staff to travel and operate outside their jurisdiction, geographic nexus is regarded as the most important consideration for SEC investigation and enforcement actions<sup>5</sup>. Investigations are typically handled by local enforcement staff at the SEC regional office overseeing the jurisdiction

<sup>&</sup>lt;sup>2</sup> See "Report to the Ranking Minority Member, Committee on Banking, Housing, and Urban Affairs, U.S. Senate – Financial Restatements Update on Public Company Trends, Market Impacts, and Regulatory Enforcement Activities" (GAO-06-678, 2006) and "Report to the Banking Member Committee on Finance, U.S. Senate – Securities and Exchange Commission Additional Actions Needed to Ensure Planned Improvements Address Limitations in Enforcement Division Operations" (GAO-07-830, 2007).

<sup>&</sup>lt;sup>3</sup> Blackburne (2014) studies the relation between regulatory oversight and corporate reporting incentives, using budgetary resources allocated to the Division of Corporate Finance as a source of variation. The division is responsible for overseeing compliance with corporate disclosure regulations but does not conduct enforcement actions.

<sup>&</sup>lt;sup>4</sup> According to GAO report (GAO-06-678, 2006), "Depending on the type of proceedings, SEC can seek sanctions that include injunctions, civil money penalties, disgorgement, cease-and-desist orders, suspensions of registration, bars from appearing before the Commission, and officer and director bars. After an investigation is completed, SEC may institute either type of proceeding against a person or entity that it believes has violated federal securities laws. Because SEC has only civil enforcement authority, it may also refer appropriate cases to the Department of Justice (DOJ) for criminal investigation and prosecution. According to SEC, most enforcement actions are settled, with respondents generally consenting to the entry of civil judicial or administrative orders without admitting or denying the allegations against them."

<sup>&</sup>lt;sup>5</sup> For example, according to a law article discussing the role of the SEC enforcement division, "Given the budgetary restrictions under which the Enforcement Division staff has had to operate, and the need to avoid travel costs where at all possible, the division has reinforced the importance of a geographic nexus to the region..." (See "The Role of Regional Offices in the SEC FCPA Unit", Law 360, New York, September 30, 2011). The SEC adopted a centralized approach for enforcement approval in 2007. Before 2007, directors at either the home or 11 regional offices had the ability to approve an investigation. Starting in 2007, the SEC adopted a centralized approach where two deputy directors at the SEC home office were to review and approve all newly opened inquiries and investigations to ensure the appropriateness of resource allocation considerations and whether an inquiry should be pursued (GAO-07-830). Regardless of the decentralized or centralized approach, the actual investigations are mostly conducted by staff attorneys at regional offices. Our empirical results stay quantitatively the same if we remove observations after 2007.

state where the company is headquartered.<sup>6</sup> Anecdotes from a number of sources support this notion. First, the SEC, at the conclusion of an investigation, issues enforcement releases that disclose the names of the enforcement staff conducting the investigation. Our reading of such releases reveals that the enforcement staffs listed are usually located in the regional office where the company is headquartered. Further, upon the departure of a regional director the SEC issues news releases that summarize the achievements of the leaving director during his/her tenure. These releases indicate that the local regional offices are the driving force for enforcement actions.<sup>7</sup> Consistently, Kedia and Rajgopal (2011) find that the strength of SEC scrutiny is correlated with the geographic proximity of its regional offices to firms. Among firms that announce earnings restatement, the SEC is more likely to investigate those that are located closer.

The second friction is that the regulatory body faces constraints in terms of budgetary and staffing resources (Jackson and Roe, 2009; Kedia and Rajgopal, 2011). Enforcement actions are costly. A formal investigation can be a prolonged process, involving collecting evidence, interviewing witnesses, and examining records among other activities. Due to budget and staffing constraints, the SEC has to weigh costs against potential benefits when it targets firms for enforcement actions; many firms that manipulate earnings can go unidentified. Enforcement by shareholders through class action lawsuits may be an alternative mechanism. However, shareholders' collective actions and lawsuits are costly too, and face coordination problems. Many of the cases brought against firms by shareholders do not have enough merits and go unsettled as a result. In fact, the class action lawsuits data we collect from Stanford Law School Securities Class Action Clearinghouse shows that about 50% of the closed suits were actually dismissed.

These two frictions make it possible that headquarters relocation may alter the likelihood of firms getting caught by the SEC. First of all, relocations disrupt the equilibrium of monitoring in the local offices. The regional office that oversees the new location will need to reallocate its budget in

<sup>&</sup>lt;sup>6</sup> The 11 SEC regional offices are Atlanta, Boston, Chicago, Denver, Fort Worth, Los Angeles, Miami, New York, Philadelphia, Salt Lake, and San Francisco, overseeing all 50 states, Washington D.C., Guam, and Puerto Rico (see Appendix Table 3 for a list of regional offices and their states of jurisdiction). Seven offices were upgraded from district offices to regional offices in 2007. The upgrades allowed these offices to report directly to the SEC office in Washington D.C. However, their states of jurisdiction remained hardly changed after the upgrades.

<sup>&</sup>lt;sup>7</sup> For example, at the departure of Rose Romero, Director of the SEC's Fort Worth Regional Office, the release has "under Ms. Romero's leadership, the Fort Worth office brought highly significant cases … including… accounting and corporate reporting cases such as the case against New Orleans-based hurricane restoration company Home Solutions of America Inc. and seven of its executives for recording and reporting more than \$40 million in improper revenue through an expense deferral scheme, and the \$10 million case against the CEO and CFO at Oklahoma-based Quest Resources – which led to the officers' criminal convictions and sanctions against three of the company's auditors."

order to provide meaningful monitoring of a relocated firm. It may also require the coordination of two offices to conduct an investigation, should the SEC target a relocated firm. Relocations entail many changes that can increase costs for regulators to detect and investigate fraudulent activities. For example, the relocation and turnover of employees can make witness finding and interviewing much harder than without the move. Second, the SEC regional offices are not uniform in terms of their scrutiny strength and specialization. The cross-sectional variation in enforcement creates opportunity for firms to escape from the radar of regulators, especially if they move into a location with weaker enforcement.

Only recently, SEC started to adopt a centralized process in reviewing and approving enforcement actions by setting up a special unit – Financial Reporting and Audit Task Force - within the Enforcement Division in 2013. This division contains a small group of experienced attorneys and accountants charged with developing cutting-edge tools to better identify financial fraud and incubating cases to be handled by other groups. The Task Force monitors high-risk areas, analyzes industry performance trends, reviews restatements, revisions, and class action filings as well as academic research. It also works on the SEC's Accounting Quality Model, which is developed to use data analytics to assess the degree to which a company's financial reporting appears noticeably different from its peers.<sup>8</sup>

## B. Related Literature

Our paper is closely related to research on financial misconduct, SEC enforcement, and corporate headquarters location decisions. This section provides a brief review of the literature and puts our research into perspective.

The decision of whether to commit misconduct follows a standard cost-benefit analysis (Becker, 1968). Incentives for financial misconduct can arise from equity-based compensation (Cheng and Warfield, 2005; Burns and Kedia, 2006; Efendi, Srivastava, and Swanson, 2007), peer effects and social norms (Koh, Kedia, and Rajgopal, 2015; Parsons, Sulaeman, and Titman, 2015). In addition, Povel, Singh, and Winton (2007), Wang, Winton, and Yu (2010), and Wang and Winton (2014) document that investor beliefs about industry prospects and product market interactions explain fraud waves.

<sup>&</sup>lt;sup>8</sup> See "Stay informed: 2014 SEC comment letter trends", by PWC, December 2014.

Prior research documents the costs of financial misconduct, especially to managers and the board of directors. Desai, Hogan, and Wilkins (2006) report a high likelihood of top management turnover after an earnings restatement. Srinivasan (2005) and Fich and Shivdasani (2007) find that outside directors of fraudulent firms are penalized through job turnover and a significant decline in the number of board seats they hold outside the fraudulent firm. Moreover, if managers were alleged by regulators as responsible parties for the misconduct, they not only lose jobs and bear substantial financial losses, but can also face criminal charges and jail sentences (Karpoff, Lee, Martin, 2008a).

Severe penalties of misconduct can impact corporate behavior in two possible ways: first, managers may refrain from fraudulent behavior, which is the ideal response in the interest of shareholders and regulators; second, managers may engage in misconduct while making it harder for external monitors to detect. We are interested in the latter response, which is likely to be the case if incentives for fraudulent practice are strong. We argue that if managers of a firm are in the midst of financial misreporting activities but have not yet been detected by regulators, the incentives are high for them to continue the misconduct while evade detection. One of the venues for achieving this objective is to relocate in order to create substantial costs for regulators to detect the fraud.

Our research adds to an emerging literature on the effect of SEC enforcement. Kedia and Rajgopal (2011) find that firms committing financial fraud are more likely to get caught when they are located closer to regional SEC offices, suggesting that the deterrence effect of SEC enforcement tends to be local. Del Guercio, Odders-White, and Ready (2014) find that SEC enforcement deters insider trading. Others argue that political connections and corporate lobbying may compromise regulatory enforcement (Yu and Yu, 2011; Correia, 2014). Our paper builds off the existing literature yet takes a different approach to identify the deterrence effect of the SEC. We examine a specific type of corporate decision and how the intensity of SEC enforcement affects such decisions. Our findings that firm move headquarters in response to enforcement shocks not only confirm the deterrence effect of the SEC but also suggest that regulatory scrutiny can have an impact on corporate decision making.

Our study is also related to the economic geography research that has explored firm needs that potentially drive location choice. These studies find that access to business services is an important consideration for firms to choose headquarter locations (Klier and Testa, 2002; Davis and

Henderson, 2008) and relocation destinations (Strause-Khan and Vives, 2009). Consistent with the value creation hypothesis, Chan, Gau and Wang (1995) find that headquarters relocation announcement is associated with a 0.87 percent abnormal return. Our study builds on this literature yet offers an alternative perspective that examines an opportunistic motive for corporate headquarters relocation.<sup>9</sup>

## **III. Data and Sample Overview**

A. Data Sources and Variable Construction

## A1. Corporate Headquarters Relocations

For the Compustat universe of firms from 1994 to 2012 we write web crawling algorithms to collect annual corporate headquarters locations including state and ZIP code from company 10-Ks filed with the SEC through EDGAR. Using the location information collected, we identify headquarters relocations and the fiscal year in which the relocation took place. Next, we manually examine SEC filings (10-Ks) around the year of the relocations to verify the relocations.<sup>10</sup> We record the reasons for the relocation through reading SEC filings (10-Ks and 8-Ks) and news archives around the headquarters relocations. We classify the relocations into a number of unique categories based on reasons stated by firms, including business expansion, cost savings, change of stakeholders and other reasons, following prior literature.<sup>11</sup> We identify whether the relocation is out-of-MSA. We focus on moves that are both out-of-state and out-of-MSA.<sup>12</sup>

#### A2. Financial Misconduct and Aggressive Accounting

<sup>&</sup>lt;sup>9</sup> Our study is also related to Li and Yermack (2014), who find that managers relocate their annual shareholder meetings when they have unfavorable news that they wish to keep quiet from shareholders. Headquarters relocation is a costly corporate decision, much more than relocating shareholder meetings. Discovering self-serving incentives behind this costly corporate action allows us to provide big picture evidence on firms pursuing suboptimal corporate strategies. <sup>10</sup> For some firms, the business address and the headquarters address can be different. It is possible that our web

crawling picks up the business address rather than the headquarters address. Our manual examination of the 10-K filings would eliminate such concern.

<sup>&</sup>lt;sup>11</sup> The coding of reasons for relocations was primarily conducted by two research assistants, who are now auditors at two of the *big four* accounting firms, under the supervision of two of the authors of this paper. At times a firm may indicate multiple reasons for relocations, which are projected to different categories of our classification.

<sup>&</sup>lt;sup>12</sup> For the purpose of our study, out-of-MSA but within-state moves are significant enough to disrupt the external monitoring system. Some of the MSAs are located across two states (e.g. New York-Newark-Jersey City, Chicago-Naperville-Elgin, and Philadelphia-Camden-Wilmington). Removing moves that are across states but within-MSA eliminates these cases.

To identify SEC enforcement actions, we turn to the Center for Financial Reporting and Management at the Haas School of Business, UC Berkeley to obtain Accounting and Auditing Enforcement Releases (AAERs). AAERs are issued by the SEC during or at the conclusion of an investigation against a company, an auditor, or an officer for alleged accounting and/or auditing misconduct.<sup>13</sup> The dataset contains a list of annual or quarterly financial statements that were restated and later investigated by the SEC. We add two years to the fiscal years of the financial statements since it takes on average about two years for frauds to emerge (Dyck, Morse, and Zingales, 2010). In other words, we would like to capture the time of SEC enforcement actions rather than the time when the misconduct took place.

To capture shareholder litigation on corporate misconduct, we use securities class action lawsuits collected from the Stanford Law School Securities Class Action Clearinghouse, an online database of all securities class actions filed in US Federal Court since the passage of the Private Securities Litigation Reform Act (PSLRA) of 1995.<sup>14</sup> Compared to AAERs, this measure covers a broader range of misbehaviors including financial misreporting and other corporate misconduct that are brought by shareholders. *Class actions* is an indicator variable that takes on the value of one for fiscal years coinciding with the year when securities class action lawsuits are filed. The first two measures capture financial misconduct that is caught by either regulators or shareholders.

We use *Fraud Score*, calculated using the misstatement prediction model and coefficient estimates of Dechow, Ge, Larson, and Sloan (2011), to capture the *ex ante* likelihood of financial misreporting and being caught by the SEC. The dependent variable in their model takes the value of one if the financial statement of a certain fiscal year/quarter is restated and later investigated by the regulator; therefore the predicted value fraud score measures the likelihood of misreporting.<sup>15</sup>

<sup>&</sup>lt;sup>13</sup> Using AAERs has several advantages relative to other potential data sources. First, the use of AAERs as a proxy for manipulation avoids potential biases induced in samples based on researchers' individual classification schemes, and can be easily replicated by other researchers. Second, AAERs are also likely to capture a group of economically significant manipulations as the SEC has limited resources and likely pursues the most important cases. AAERs have been used in the accounting literature in studying accounting misstatements and frauds (e.g., Dechow, Ge, Larson, and Sloan, 2011).

<sup>&</sup>lt;sup>14</sup> This database was employed in a number of prior studies on measuring litigation risks (e.g., Field, Lowry, and Shu, 2005), Dyck, Morse, and Zingales, 2010).

<sup>&</sup>lt;sup>15</sup> The firm's probability of fraud based on the fraud model of Dechow et al. (2011) divided by the unconditional probability of fraud. We calculate predicted probability using the coefficient estimates from Dechow et al. (2011). Predicted Value= -7.893+0.79\*rsst\_acc 2.518\*ch\_rec+ 1.191\*ch\_inv + 1.979\*soft\_assets+0.171\*ch\_cs+(-0.932)\*ch\_roa+1.029\* issue. RSST accruals come from Richardson, Sloan, Soliman, and Tuna (2005). This measure extends the definition of WC accruals to include changes in long-term operating assets and long-term operating liabilities. WC=(Current Assets- Cash and Short-term Investments)-(Current Liab - Debt in Current Liab); NCO=(Total Assets - Current Assets - Investments and Advances) - (Total Liab - Current Liab - LT Debt); FIN=(ST Investments +

Further, we use restatement of accounting earnings as the second measure of financial misreporting following prior studies (e.g., Burns and Kedia, 2006; Desai, Hogan, and Wilkins, 2006, Efendi, Srivastava and Swanson, 2007). We use Audit Analytics to extract information on restating firms, the filing date of restatement, and the fiscal period of restated earnings, which are available for fiscal years after 1997. The indicator variable *Restatement\_Class* is set to one if financial statements pertaining to that fiscal year are later restated, and zero otherwise. The indicator variable *Restatement\_File* is set to one for years when restatements are filed, and zero elsewhere.

Following prior literature (e.g., Jones, 1991; Dechow et al., 1995; Bergstresser and Philippon, 2006), we construct two measures of aggressive earnings management based on the level of discretionary accrual. We first calculate total accruals as the difference between net income and cash flow from operations, deflated by total assets. We then follow a modified Jones' (1991) model to tease out the component of accruals that is beyond the control of the managers. Specifically, total accruals are regressed on the change in sales less the change in receivables and gross property plant and equipment, both scaled by total assets. The residual is referred to as discretionary accruals. We use the absolute value of discretionary accruals (unsigned) to capture earnings smoothing, i.e., upward or downward management of earnings to create a smooth pattern over time. The second measure is a refined version of the first following Kothari, Leone and Wasley (2005). To control for the effect of performance on accruals we match firms based on return on assets and calculate performance-matched discretionary accruals. We find three matches for each firm in the same fiscal year and industry with the closest ROA; performance-matched discretionary accrual is then calculated as the difference between the firm's discretionary accrual (our first measure) and the average of three match firms' discretionary accrual. This measure is labeled as *abnormal accruals* (performance) throughout the paper.

Firm-level financial data and data required to construct these measures is obtained from Compustat. Stock prices and returns are obtained from CRSP. All financial variables are defined in Appendix Table 1.

## A3. SEC Regional Offices

LT Investment) - (LT Debt + Debt in Current Liab + Preferred Stock); Chg in Receivables is defined as chg in AR/Average Total Assets; Chg in Inventory is chg in Inventory/Average Total Assets; % Soft Assets = [Total Assets - PPE - Cash and Cash Equivalent]/Total Assets; Chg in cash sales is Pct chg in cash sales, cash sales=[Sales - Chg in AR]; Chg in ROA is Earnings\_t/Average total asset\_t - Earnings\_t-1/Average total asset\_t-1; Issue is an indicator variable equal to 1 if the firm issued securities.

There are altogether 11 SEC regional offices covering all the states in the U.S. We collect information on the SEC regional offices from the SEC website

(http://www.sec.gov/contact/addresses.htm), including where the offices are located and the states covered by each office. Appendix Table 2 lists the states of jurisdiction for each regional office. It also shows the geographic area and number of Compustat firms for which each regional office is responsible. The Chicago office has the most responsibility in terms of the number of states covered, while the San Francisco office has the largest coverage in terms of area and number of firms.

We identify names of the regional office directors from 1995 to 2012. For each director we collect their full biographies prior to joining the office as the director.<sup>16</sup>

# A4. Firm-Level Explanatory Variables for Relocations

Firms relocate headquarters for a variety of strategic reasons such as business expansion, cost savings, and proximity to human capital and services. We develop measures at the firm-level along these lines, motivated by prior economic geography literature.

We use operating performance (operation profits scaled by book assets) to measure the costsaving motives for headquarters relocations. Firms with poor operating performance have strong incentives to pursue various options to improve operating margin such as costs cut through headquarters relocation. Further, we use sales growth (sales from current year divided by the average of sales from last three years) and market-to-book ratio (the ratio of market value of assets, which is the sum of all issue-level market values, including trading and non-trading issues, to book assets) to measure the growth motives for headquarters relocations. Firms with low sales growth and low market valuations are likely to consider corporate relocation as a strategy to achieve access to new markets and business expansion.

Costs associated with headquarters relocation are non-trivial. Such costs include property acquisition and disposition, employee relocation and retention, employee hiring and training, and business interruption. A firm must weigh the benefits from relocation against the costs associated with the move to determine whether headquarters relocation is a positive NPV project. The variables described in the above tend to capture the benefits associated with the relocation. We

<sup>&</sup>lt;sup>16</sup> The list of directors and their full bios are not listed in this table but can be requested from authors.

further consider firm size (measured as the natural logarithm of sales), <sup>17</sup> age (measured as the years since the firm first appeared in the Compustat database),<sup>18</sup> and local industry clustering (measured as the number of firms in the same 2-digit SIC industries located within the same MSA) as proxies for the costs associated with the move.

### A5. Analyst Coverage

We use the number of analysts following the company as a proxy for external monitoring from sources other than regulators. The variable of interest is the number of analysts covering the firm. We turn to IBES to retrieve the data. There is a long literature that documents that analysts play the role of external monitors of managerial misconduct – playing the role of "gatekeepers" (Coffee, 2007) – and enhance security market information dissemination (e.g. Moyer, Chatfield and Sisneros, 1989). Recent studies suggest that firms manage earnings to a lesser extent when they are followed by more (experienced) analysts and analysts from top brokers (Yu, 2008), and that analysts matter most when investors are well protected (Lang, Lins, and Miller, 2004).

# A6. MSA and State-Level Explanatory Variables for Relocations

Proximity to human capital and services is often quoted by firms as an important reason for headquarters relocations. Our measure of the availability of human capital and services in an MSA comes from the population survey of the 2000 US Census Bureau. Further, prior studies suggest that MSA-level amenities affect a firm's choice about where to locate its headquarters (Klier, 2006). We use the MSA-level amenity value calculated by Albouy (2012) to measure the friendliness of the local business and social environment. Given that housing cost is treated as a major component in determining the amenity value and firms often move to save rent costs, we calculate the difference in housing costs between the old and new location, with MSA-level housing costs from Albouy (2012). Corporate tax savings serve as another important motive for firm relocations (Strauss-Kahn and Vives, 2009). We collect historical state-level corporate income taxes and personal income

<sup>&</sup>lt;sup>17</sup> It is plausible to argue that relocation costs are correlated with firm size; large firms can incur more costs to move than small firms. Relocations by large firms also tend to catch public attention, creating disincentives for firms in the midst of fraudulent activities. On the other hand, relocations may be more disruptive for small firms as they tend to have stronger local stakeholder presence and social ties than large firms (see Coval and Moskowitz, 1999; Petersen and Rajan, 2002). Therefore, small firms are more likely to experience disruptions to business continuity after relocations. It is not clear whether small firms are more likely to relocate than large firms, on average.

<sup>&</sup>lt;sup>18</sup> Old firms build strong social ties with the local community. Relocation can be more disruptive to these firms than young firms. Prior studies suggest that industry geographic clustering and agglomeration bring benefits to firms. Clustered location is often due to industry specialization (e.g. energy firms tend to locate close to oil reserves; car manufacturing firms locate close to natural resources and cheap labor), thus loss of clustering benefits can be another potential cost associated with firm relocation.

taxes from the Tax Foundation. Finally, we identify the top ten cities as top financial centers, as ranked by the number of fund families shown in Hong, Kubik, and Stein (2005).

#### B. Sample Overview

Table 1 presents the annual frequency of corporate headquarters relocations from 1995 to 2012. Our sample includes all Compustat firm years for which our web-crawling algorithm is capable of identifying annual headquarters locations from 10-Ks through EDGAR. On average, 1.61% of firms move their headquarters to a different state and 1.83% of firms move to another MSA in a given year. Together, 1.47% of firms move to a different MSA that is in another state and 1.97% of firms move to either another MSA or another state. In terms of frequency of relocations (untabulated), 1,145 firms relocated only once while 216 firms relocated more than once in our sample period.

Figures 1A and 1B depict the trend of headquarter relocations in the past two decades, benchmarked with the change in the SEC budget (in 2009 dollars and the ratio of total market capitalization, respectively) in the same window (see Kedia and Rajgopal, 2011). The SEC's budget substantially increased after the Sarbanes-Oxley Act of 2002. In particular, the enforcement staff increased by 25% from 1,012 in 2002 to 1,283 in 2007 (GAO-07-830). The number of investigative attorneys in Enforcement increased substantially from 596 in 2002 to 740 in 2005. Interestingly, the figures consistently show that relocation incidences change in an opposite direction with the SEC budget. Number of relocations peaks in 2001 and then start to descend after 2002, when the Sarbanes-Oxley Act was enacted and the SEC budget took off. Further, the frequency of relocations experiences a sharp decline after 2007, when the SEC starts to adopt a centralized approach in approving enforcement investigations. This pattern is consistent with our premise that relocations are associated with scrutiny avoidance motives and are thus discouraged when such motives become harder to achieve.

Through a careful reading of SEC filings, corporate press releases and media coverage we identify the reasons that firms offer for their headquarters relocations. We define 20 unique categories of relocation motivations and place them into four major categories: business expansion or change, cost savings, change of stakeholders, and other reasons.<sup>19</sup> Often firms state multiple or ambiguous reasons (about 27%) or no explicit reasons (about 14%) for relocations. As a result, the

<sup>&</sup>lt;sup>19</sup> Our classifications are consistent with prior literature (e.g, Chan, Gau, and Wang, 1995).

summary statistics presented in Table 2 add up to more than 100%. Table 2 shows the distribution of reasons for relocations.

Business expansion or change is the category most frequently quoted, with "merger or major asset purchase" being the most common reason (31%) in this category,<sup>20</sup> followed by "refocusing resources or production, change of business nature or sector specialization", which 10% of the moving firms quote as the reason for their relocation. Divestiture is also one of the common reasons (10%) in this category. Cost saving is the second most frequent reason for relocations. Within this category, 14% of the relocations quote "reduce operating expense, lower labor costs, or tax savings" as the reason for relocating; 12% of the relocations are due to facility consolidation; and 9% of the firms move to be in proximity to production or increase production, services, and human capital) account for about 13% of the relocations, consistent with prior literature that such considerations are important in location choices. Change of stakeholders appears to be the third most frequent category, with "change of or close to top managers/CEO preference" accounting for 10% and "change of or proximity to owners or major shareholder" 6% of the relocations. Other reasons include bankruptcy/distress (2%) and better environment/amenities (1%). Finally, 14% of the relocations are not supported by explicit reasons.

Table 3 presents summary statistics that describe the demographic characteristics of the original location before the move and the new destination after the move. On average, firms move 1,117 miles away from the original headquarters, indicating relocations are significant in terms of the distance of the move. There is no statistical difference in population between the old and the new locations. We find evidence consistent with cost reduction and tax savings being important drivers for relocation. Firms tend to move to destinations with lower housing costs, amenity scores, and income tax rate (both corporate and personal). Specifically, the new location has 16% lower (from 0.173 to 0.145) housing cost, and 16% lower (from 0.069 to 0.058) amenity score. A typical corporation pays about 1% less in corporate income taxes and 0.5% less personal income tax rate. The differences in median are statistically significant at the 1% level. There is evidence that firms

<sup>&</sup>lt;sup>20</sup> The business nature or asset composition may change after major acquisitions which may coincide with the headquarters relocations. However, given corporations frequently make acquisitions and asset purchases and may not truthfully report the true motives for relocations we include this category for the rest of the empirical analyses. For robustness tests, we exclude relocations for which acquisitions are quoted as the reason and find our empirical results hardly change.

tend to move into industry clusters. The original and new locations are not significantly different in terms of distance to financial centers.

Figure 2 presents the distribution of the new location and old location by states. One interesting piece of evidence is that firms tend to move out of California and into Texas. This is consistent with anecdotal evidence on top executives citing Texas as business friendly.<sup>21</sup> Further, Barzuza and Smith (2014) find that Nevada becomes the most popular state for out-of-state incorporations because of its lax corporate law. However, we do not find evidence that firms relocate headquarters more often to Nevada than other states. Our results suggest that state of incorporation and headquarters location are two distinct corporate decisions made by firms.

## **IV. Methodology**

To establish the association between the probability of headquarters relocation and potential fraudulent activities, we first develop a panel logit regression model for the probability of a firm relocating its headquarters. Our variables of interest are the *ex ante* measures on financial misreporting, aggressive earnings management, and financial statements that are restated later. The deterministic model builds an association between fraudulent behavior and the likelihood that the firm relocates. The panel logit regression takes the following form:

$$Move_{i,t}^* = \alpha_i + \beta Fraud_{i,t-1} + \gamma X_{i,t-1} + \mu_t + \mu_{ind} + \mu_s + \varepsilon_{it}$$
  

$$Move_{i,t} = 1 \text{ if } Move_{i,t}^* > 0; \text{ and } Move_{i,t} = 0 \text{ if otherwise}$$
(1)

where *Move* is an indicator variable for headquarters relocation; *Move*<sup>\*</sup> is a latent variable; *Fraud* captures various measures on potential financial misconduct;  $X_{i,t}$  is a vector of control variables motivated by the economic geography literature;  $\mu_t$ ,  $\mu_{ind}$ , and  $\mu_s$  are a set of year, industry, and state fixed effects; and  $\mathcal{E}_{it}$  is a stochastic error term. The various fixed effects intend to capture unobserved heterogeneity across time, industry, and state (Gormley and Matsa, 2014). Due to the concern that a non-linear model may be impractical with a large number of fixed effects and likely to produce biases estimates due to the incidental parameter problem (Lancaster, 2000), we perform

<sup>&</sup>lt;sup>21</sup> See, for example, <u>http://www.bizjournals.com/sacramento/print-edition/2014/12/19/how-california-firms-fare-after-moving-to-texas.html</u>, and <u>http://finance.yahoo.com/news/why-business-is-leaving-california-for-texas-174227275.html</u>,

linear probability models with high dimensional fixed effects based on interactions of year and industry, and year and state. The high dimensional fixed effects control for unobservable time varying factors that are industry and region specific such as industry and local economic conditions.

There is a potential issue with the logit or linear probability regressions shown in Equation (1). Relocation likely takes place along with a series of other changes, for example, adopting new business strategies and financial policies to boost revenue, cut costs, and enhance cash flows. The accounting practice may change prior to relocation due to the simultaneous change of business strategy. Thus the endogeneity of both financial reporting and relocation decision makes it hard to draw causal inferences. For identification we exploit exogenous variations in scrutiny intensity of the SEC regional offices. Our purpose is to identify settings with positive shocks to SEC enforcement intensity; if firms' relocation decisions are independent of scrutiny avoidance, we would not observe any changes in the probability of relocations upon the shock; however, if scrutiny avoidance is an important motive, we would see firms with fraudulent activities more likely to move after the shock. We identify two shock settings.

The first is an ex-post measure of elevated SEC enforcement actions, occurring when there is a significant increase in the number of AAERs brought by the SEC regional office. Each year we calculate the rate of enforcement actions brought by every regional office over a rolling three year window (t-3 to t-1) and compare it to the enforcement rate in year t. We then sort the offices each year and identify the two regional offices with the largest increase in enforcement rates as offices with enforcement shocks. This exogenous shock may be due to budgetary and resources allocations that affect regulators' constraints, and/or changes in the productivity of SEC enforcement officers.<sup>22</sup> Regardless of the source of the variation, the SEC enforcement shocks are exogenous to a firm's tendency to relocate.<sup>23</sup>

Further, to alleviate the concern that the source of variation may be a sudden rise of firms' tendency to commit fraud in the geographic region of the firm's old location, we compare the average fraud score of all firms located in the state where the relocating firm is located and that of

<sup>&</sup>lt;sup>22</sup> Unfortunately, SEC does not publish its budget by regional enforcement offices. Here is the link to the 2015 budget <u>http://www.sec.gov/about/reports/secfy15congbudgjust.pdf</u>. It provides useful information on organization of the SEC.

<sup>&</sup>lt;sup>23</sup> It is possible that the SEC enforcement shock may coincide with local business condition changes that in turn drive the probability of relocations. This should not be a major given that we control for dimensional fixed effects based on year, state, and industry. Nonetheless, to mitigate this concern we examine whether the state that receives an enforcement shock also experiences an economic shock by comparing the GDP growth rate in the year when enforcement shock is observed and the average GDP growth rate in three years prior. We find no statistical significance.

all firms located in the state where the relocating firm is moving into. We do not find statistically significant difference in their fraud scores. Nevertheless, we use a second setting which relies on the observation that the SEC regional office appoints a new director replacing a "weak" director at a regional office to serve as an ex-ante indicator of intensified scrutiny. Specifically, if the regional office's enforcement activities are in the bottom half among all offices in the three years prior to the turnover, and a new director is brought from another SEC office, we treat the director turnover as a positive enforcement shock.<sup>24</sup>

Finally, we examine whether firms that relocate their headquarters (*Treat=1*) are likely to conduct more financial frauds but not more likely to be caught than those that do not move given the same ex ante likelihood of conducting fraudulent activities. For each firm that relocates headquarters (i.e. treated firms), we draw one matched firms within the same SEC regional jurisdiction, in the same year of the relocation, with the closest propensity to relocate, which is estimated based on Equation (1).<sup>25</sup> We then perform a standard difference-in-difference test (Bertrand, Duflo, and Mullainathan, 2004), where *Post* is an indicator that has value one for years after the year of relocation and zero for years before:

$$y_{it} = \alpha_0 + \alpha_1 Post_{it} + \alpha_2 Treat_i + \alpha_3 Post_{it} Treat_i + \mu_t + \mu_{state} + \varepsilon_{it}$$
(2)

The coefficient estimate of interest is, therefore,  $\alpha_3$ , which indicates whether a firm that relocates is more likely to conduct fraud afterwards compared to a control firm.

#### **V. Empirical Results**

## A. Financial Misreporting and Headquarters Relocations

Table 4 reports the regressions that predict headquarters relocations with economic factors and motives associated with financial misreporting. The dependent variable is an indicator set to

<sup>&</sup>lt;sup>24</sup> We do not treat the appointment of a new director that is directly hired from the industry (e.g. law firms) as a positive shock because they are expected to be lack of enforcement experience. Further, our results are stronger if we focus on a subset of new directors with enforcement background or hired from another SEC office that has intense enforcement actions in the past three years. However, the number of shocks fitting the criteria is very small.

<sup>&</sup>lt;sup>25</sup> Stuart (2011) discusses the merits of exact matching when dealing with particularly important covariates and recommends combining a propensity score matching with exact matching. By exact matching on year and SEC regional jurisdiction, we are able directly compare the fraudulent behavior of firms that experience an enforcement shock and move to a set of control firms that do not move. Our results stay invariant using other matching approaches such as exact matching on size quintile and fraud score quintile, or exact year and propensity matching. Further, our results are robust to drawing three closes matches instead.

one if a firm relocates its headquarters in the given year, and zero otherwise. The main variables of interest are the fraud score on the likelihood of financial misreporting, one indicator for the fiscal years pertaining to which accounting reports are restated, and two measures on aggressive earnings management; each is investigated separately due to correlations among the measures. Other explanatory variables include ROA, market-to-book, sales growth, age of the firm, natural logarithms of sales, and industry cluster. Panel A presents the results of coefficient estimates using logit regressions, while Panel B presents results using high-dimensional fixed effects OLS regressions.

As seen from Panel A of Table 4, all financial reporting measures are positively related to the likelihood of headquarters relocation. In particular, the coefficient of estimate of the logit regression is 0.35 on the natural logarithm of fraud score, 0.30 on the restatement indicator for when misreporting occurs, and 0.24-0.29 on abnormal accruals. Put into perspective, with a one standard deviation increase in the logarithm of fraud score (0.36), the likelihood of headquarters relocation increases by 0.16%. Similarly, a change in *Restatement\_Class* dummy is associated with a 0.12% higher likelihood of relocation. Further, a one standard deviation change in abnormal accruals (unsigned) and performance-matched abnormal accruals (unsigned) translate into a 0.11% and a 0.10% increase in the probability of headquarters relocations, respectively. The economic magnitude of the change is large, given that the unconditional probability of moving out-of-state and out-of-MSA is only 1.47%. Moreover, it seems that financial misreporting matters more to the probability of relocation than aggressive earnings management.

The coefficients on ROA are significantly negative across all the specifications, suggesting that firms tend to move when performance is poor. It is likely that poorly-performing firms see headquarters relocation as a strategy to enhance performance and/or steer away from distress through cost reduction. Further, poor performance may expose firms to higher scrutiny from investors and regulators and thus create motives for firms to interrupt such scrutiny through moving. Sales revenue and sales growth both show significantly negative coefficients across all specifications, which further suggests that moving firms tend to be small and are not strong performers. This is consistent with cost reduction being self-reported as one of the main reasons for moving, as documented in Table 2. Moreover, we find that older firms and firms that are located within industry clusters are less likely to relocate headquarters, consistent with our conjecture earlier that the costs of losing social ties and interactions with peers can be large for these firms.

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Panel B presents the results of OLS regressions with high dimensional fixed effects. They are qualitatively the same as those in Panel A of Table 4.

Given that merger and asset purchases are the most frequently quoted reasons for relocations we investigate whether firms that make large acquisitions are more likely to relocate than those that do not. The purpose of this analysis is to find out whether the relation between financial misconduct and headquarters relocation is driven by the subsample of firms that make acquisitions.

We retrieve all completed merger and acquisition transactions that involve a U.S. target and that result in the acquirer owning at least 50% of the target shares after transaction completion from SDC Platinum from 1994 to 2012. We further remove transactions that are LBOs, taken private transaction, spinoffs, recapitalizations, self-tenders, repurchases, proxy fights, debt restructuring, sale lease buybacks, joint ventures and assets swaps. Next, we merge the acquiring firms with Compustat firms in our relocation sample. For each fiscal year, we calculate the number of acquisitions made by a firm and the total value of acquisitions scaled by the book value of asset. We define four variables to capture acquisition activities, including an indicator of whether there is at least one acquisition, the natural logarithm of the number of acquisitions, and whether the total assets acquired are more than 5 and 10 percent of the acquiring firm's assets, respectively.

Panel A of Appendix Table 3 reports the association between acquisitions and relocations controlling for other economic determinants of relocations. Columns (1) to (4) consistently report negative coefficients on various measures of acquisitions, regardless of whether they are measured using frequency or value of acquisitions. Interestingly, even though firms tend to self-report merger and acquisition as reasons for relocating, we do not find results supporting this claim. The more interesting question probably is: if M&A is not the true reason for relocating, then what is the hidden reason? In Panel B of Appendix Table 3, we repeat the panel logit regression in Table 4 after removing firms that have made at least one merger in a year. Even though we find no support for M&A being the driving force for corporate moves, we prudently remove acquiring firms to address the concern that M&A changes the business model and causes the accounting-based financial misreporting measures to change accordingly. The results are robust to the changed sample, with all four fraud measures showing significantly positive association with the probability of corporate relocations.

Taken together, the results support our first hypothesis that firms engaged in fraudulent activities are more likely to relocate their headquarters. Specifically, after controlling for economic

characteristics, firms with higher ex-ante likelihood of financial misstatement, more frequent earnings restatement and heightened abnormal accruals are more likely to move.<sup>26</sup> Our results are not driven by relocations due to M&A transactions.

#### B. Destination and the Nature of Relocations

If regulatory scrutiny by the local SEC office serves as a major concern for those firms relocating headquarters, we should see firms engaged in fraudulent activities more likely to move to a location where the regional SEC office undertakes fewer enforcement actions against firms in its states of jurisdiction. To construct a measure of the intensity of enforcement actions by each regional SEC office, we count the number of AAERs in each year by the SEC office and scale it by the number of firms in the jurisdiction states.<sup>27</sup> Next, we calculate the difference in the scaled number of AAERs brought by the regional SEC office between the new and the old location in the three-year window before the headquarters relocations. If the difference lies below (at or above) the median, we refer to the relocation as moving into a location with less (more) SEC enforcements.

One potential concern with our enforcement measure is that it captures the quality of firms located in the SEC regional office's jurisdiction rather than the scrutiny intensity of the SEC office. Suppose that all SEC offices exert the same level of effort in catching financial fraud. The ratio of AAERs to firms would be higher for those states that contain more firms conducting financial misreporting. To address this concern, we aggregate our data at the SEC Office – year level, and compute the percentage of firms within each region and year that are the target of AAERs; we then test the correlation of this percentage with the mean F-Score of all firms in each region. The concern of our enforcement intensity measure being a proxy for the quality of firms is only valid should we find a large positive relationship between the two. Using univariate correlations, as well as regressions that control for year and SEC office fixed effects, we find no significant relationship between the fraud scores of the firms in a region and the percentage of firms which are AAER targets in that region. Furthermore, we compare the average fraud scores of firms located in the state a firm moves from and the state a firm moves into. The average F-score of all firms at the old

<sup>&</sup>lt;sup>26</sup> In untabulated results, we use three-year averages of all measures on financial misreporting and earnings management instead of using the fiscal year right before the headquarters relocation in all our regressions and find our results stay unchanged.

<sup>&</sup>lt;sup>27</sup> Appendix Table 2 shows the number of states, areas, and average number of firms covered by the 11 regional SEC offices in the U.S. It also presents the average annual number of AAERs by the regional SEC office and the number of firms in five-year intervals.

location (i.e. the State a firm moves out of) is 1.090 and the average F-score of all firms at the new location is 1.089. The difference is not statistically significant.

Table 5 presents multinomial logit regressions with the dependent variable taking on three outcomes: moving into a location with less SEC enforcement, moving into regions with more SEC enforcement, and no relocations. The explanatory variables are the same as those in previous tables, plus year, industry, and state level controls. Our estimation results show that the coefficients estimate for fraud score, restatements, and abnormal accruals are larger and more statistically significant for relocations into locations with fewer enforcement actions. The results suggest that firms participating in financial reporting are more likely to relocate to regions with lower SEC enforcement intensity. Our findings are consistent with the notion that scrutiny avoidance serves as a motive for firms that conduct financial misreporting to relocate.

Firms state various reasons for their headquarters relocations as shown in Table 2, ranging from business expansion and cost savings to regulation changes and access to amenities in their public filings. At times, firms provide no explicit reasons (14% of the sample) for their headquarters relocations, making it difficult for outsiders to infer the true motives behind this important corporate action. In Table 6, we present multinomial logit regressions with the dependent variable representing three possible outcomes: relocations with no explicit reasons, relocations with explicit reasons, and no relocations. We find that fraud score, accounting restatements and abnormal accruals are all associated with headquarters relocations. However, the coefficients of estimates of all financial misreporting measures are slightly larger for relocations with no explicit reasons. In other words, the results suggest that fraud-motivated relocations are more salient in firms that withhold information on why they choose to move headquarters. Intuitively, if firms hope to hide their real fraudulent motives for relocations, they are more likely to stay silent.

# C. Identification Based on Enforceement Shocks

If financial reporting indeed motivates firms to relocate, we should observe that firms with high fraud scores relocate with higher probability (than firms with low fraud measures) following shocks to SEC enforcement intensity.

As discussed in the methodology section, we identify two distinct shocks: an ex-post measure based on enforcement shocks by the regional SEC office and an ex-ante measure arising from the replacement of a "weak" director of the SEC regional office. These quasi-experiments allow us to address the endogeneity concerns and enhance confidence in drawing conclusions of whether headquarters allocations are due to fraudulent motives.

Table 7 examines the influence of enforcement action shocks on the decision of a firm to relocate. Table 8 reports the results with the director shock. We use a high dimensional fixed effects model that controls for year×state and year×industry fixed effects. Our dependent variable is a dummy variable indicating if the firm relocates headquarters. The independent variable of interest is the interaction of the shock dummy and various measures of misreporting and aggressive earnings management. We further define a dummy variable for whether fraud score is above the sample median (*high fraud score dummy*) to better capture the discrete effect of fraud score and easily interpret the economic magnitude. We include other control variables that are included in earlier tables.

Columns (1) and (2) of Table 7 consistently report positive and statistically significant coefficients on the interaction of *Log(fraud score)* and *enforcement shock* and on the interaction of *high fraud score dummy* and *enforcement shock*, in addition to *Log(fraud score)* and *high fraud score dummy*. In terms of economic magnitude, a firm is 0.36% more likely to move when there is an enforcement shock given a one standard deviation increase in the logarithm of fraud score (0.36). Similarly, firms with high fraud scores are 0.5% more likely to relocate upon an enforcement shock than those with low fraud scores. This result suggests that firms with higher likelihood of misreporting are more likely to relocate after observing a sudden large increase in AAERs brought by the local SEC office. In columns (3)-(5), we find positive and statistically significant coefficients on restatements and earnings management measures. The evidence suggests that aggressive earnings management may not be severe enough to catch regulators' immediate attention. Therefore, enforcement shocks may not cause these firms to move spontaneously.

We find similar results in Table 8 using SEC director shock, except that the interaction of *Log(fraud score)* and *enforcement shock* points to the right direction but is only marginally significant. The positive and large coefficient of *high fraud score dummy* and *director shock* suggests that firms with higher fraud scores are 1.5% more likely to move when there is a director shock than those with lower fraud scores. This result suggests firms with higher likelihood of misreporting are more likely to relocate after observing a director turnover with a "weak" incumbent replaced by a potentially tough director. The coefficients on the interactive variables that involve earnings management and restatement measures are not statistically significant at the

conventional levels. Overall, Tables 7 and 8 provide strong evidence that scrutiny avoidance serves as a major concern for firms relocating headquarters.

## D. Analysts Coverage and Firm Size

We explore whether and how headquarters relocations due to financial misreporting motives vary by the passage of analyst coverage and firm size. Strong external governance should deter relocations driven by fraud-hiding motives; and highly visible firms may trigger investigation upon a headquarters relocation that coincides with not only underperformance but also strong indicators of financial misreporting. Therefore we expect to see the relation between financial misreporting measures and the likelihood of relocations to be more pronounced in the subsample of firms with no or fewer analysts following the firm and firms of small size.

In Panel A of Table 9 we include two indicator variables based on firms' analyst coverage. "Low analyst coverage" is set to one for firms with below-median (yet non-zero) analysts following the firm. "No analyst coverage" is one for firms with no analysts following.<sup>28</sup> We include interactions of fraud measures with these two indicators; if firms with low or no analyst following are not different from firms with above- median analyst following (which is the base group) then we should see an insignificant coefficient on the interaction terms. Reading across models (1) to (4), the coefficients are significantly positive on three of the four interaction terms that involve "no analyst coverage", suggesting that firms without external monitoring from financial intermediaries are more likely to move for fraudulent motives. Results on "low analyst coverage" are similar albeit weaker in statistical significantly positive. Collectively the results support our prior that external monitoring creates a disincentive for firms with financial misconduct to move for scrutiny avoidance.

Panel B replicates the specifications of Panel A except that the sample is now divided by firm size (measured by sales), with two indicator variables for firms with medium size (the middle tercile of firms sorted by sales each year) and firms with small size (bottom tercile of firms sorted by sales each year). Interacting these indicators with misreporting measures therefore benchmarks medium and small firms against large firms. Columns (1) and (2) show that, compared to large firms, medium and small firms are more likely to move when their financial statements indicate

<sup>&</sup>lt;sup>28</sup> Many firms in our sample have no analyst coverage. This could be due to two possible scenarios: the firm has no public stocks listed (they file with the SEC because they have other public securities traded such as corporate bonds) or the firm has stocks listed but have no analysts covering the firm

greater likelihood of misreporting. The results in Columns (3) and (4) are not statistically significant but point to the direction consistent with Column (1).

Taken together, the results in Table 9 support our hypotheses that headquarters relocations related to financial misreporting activities are more likely to occur in smaller firms and firms with less analyst coverage. The effect of analyst coverage is more salient than that of firm size. Given the strong correlation between firm size and analyst coverage, we take the results as suggesting that external monitoring is the more important factor to deter corporate relocations driven by financial misreporting motives than moving costs associated with firm size.

# E. Financial Misreporting and Enforcement Actions after Relocations

In this section we examine fraudulent activities as well as SEC enforcement actions and shareholder class actions following headquarters relocations. We adopt a difference-in-difference matched sample approach around headquarters relocations. For each firm that relocates, we identify a set of firms in the same year and SEC office region that do not relocate. We choose one firm that has the nearest propensity to relocate as our sample firm as our control firms.

We then perform an OLS regression on this matched sample for the three years before and after relocation. The dependent variable includes fraud score, firms' voluntary restatements of prior financial reports, and enforcement actions by SEC and class actions by shareholders. Among the independent variables, *Treatment* is an indicator that takes the value of one for firms that relocate; *Post* is an indicator variable identifying the years after the move, and *Post\*Treatment* is the interaction between the two variables. High dimensional fixed effects are included and standard errors are clustered at the firm level in all regressions. Our purpose is to investigate whether a firm that chooses to relocate its headquarters is less likely to be caught by regulators or shareholders while continuing to conduct fraud.

Table 10 validates the quality of our matching method by providing summary statistics on the treated and matched control samples. The two groups of firms look similar along all measures on financial misconduct except for *Restatement\_Class*. This is intuitive as firms that relocate tend to restate earnings more often after the move and therefore, we observe a larger proportion of treated firms misreport prior to relocations. The probability of relocation is no different between the treated and matched firms.

Panel A of Table 11 presents the regression results that consider all relocations, while Panel B presents the results using the subsample of firms without analyst coverage that relocate and Panel C focuses on the subset of firms that relocate to SEC office regions with less enforcement (using the same measure described in Table 7). All three panels show consistent results. The interaction term *Post\*Treat* is positive and statistically significant in Columns (1) and (2) in all three panels, suggesting that firms are more likely to restate their financial reports in years after relocation. More interestingly, we find that firms that relocate are more likely to conduct fraudulent activities after relocations but no more likely to be caught by either the regulators (measured by actual SEC enforcement actions) or shareholders (measured by class actions filed).

Figure 3 presents the graphs on the changes of the probability of restatements filed around the headquarter relocations. The treated and control firms have very similar likelihood of filing restatement before the relocation event. However, the firm that relocates experiences a sharp increase in the frequency of accounting restatements, in contrast with the control firms. The evidence suggests that a firm is more likely to restate its accounting reports after relocations. They are likely to do so after relocating to a region with fewer enforcement actions by the regional SEC office.

Moreover, to test the robustness of our results, we find matched firms in the states jurisdiction that the firm relocated into. Specifically, for each firm that relocates we find one matched non-mover firms (control) using matching by year, SEC jurisdiction state that the firm moves into, and fraud score, and perform the same regressions as those in Table 11. Appendix Table 4 presents the results. We find consistent evidence that firms that relocate are more likely to conduct fraudulent activities after relocations but no more likely to be caught by either the regulators or shareholders than matched firms.<sup>29</sup>

# VI. Conclusion

Headquarters relocation is a significant corporate decision that can entail large costs to a firm. Yet each year approximately 2% of U.S. public firms go through this costly process by relocating their headquarters to another state or MSA.

<sup>&</sup>lt;sup>29</sup> In untabulated analysis, we find some evidence that firms that relocate are more likely to switch auditors post relocations than matched firms that are in either the state that the firms move away from or the states that the firms move into.

We document opportunistic reasons for headquarters relocations—firms with higher ex ante likelihood of financial misreporting are more likely to relocate their headquarters. Evidence on destinations of the move further confirms the fraud-hiding motives—they tend to move to areas with weaker enforcement; such firms also seem to refrain from reporting explicit reasons for the relocation. For identification, we rely on scrutiny shocks by local SEC offices or the replacement of a "weak" regional director by a new director from another SEC office. Our results suggest that firms committing financial fraud are more likely to relocate after observing such shocks. Finally, we turn to the post-relocation window and offer evidence that relocated firms are successful in interrupting scrutiny. We find that movers, compared to non-movers with the same *ex ante* likelihood of relocation, are more likely to be caught by regulators or shareholders than matched firms.

Our paper sheds light on the relation between SEC enforcement, firms' headquarters relocation decisions and their financial reporting activities. We uncover the opportunistic motives for corporate headquarters relocation. Our findings suggest that SEC enforcement has an impact on corporate strategies, and render support for the recent SEC agenda of centralizing enforcement efforts.

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# Figure 1: SEC Budget and Headquarters Relocations

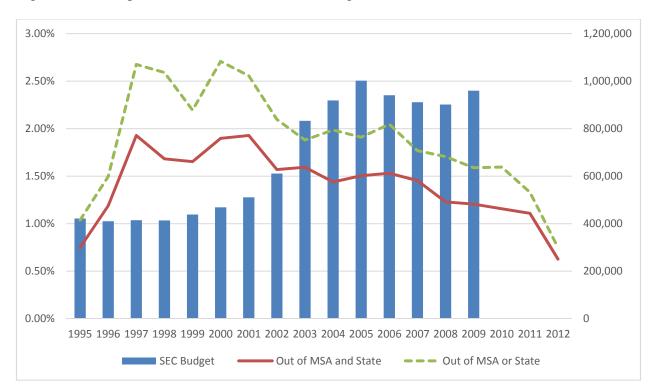
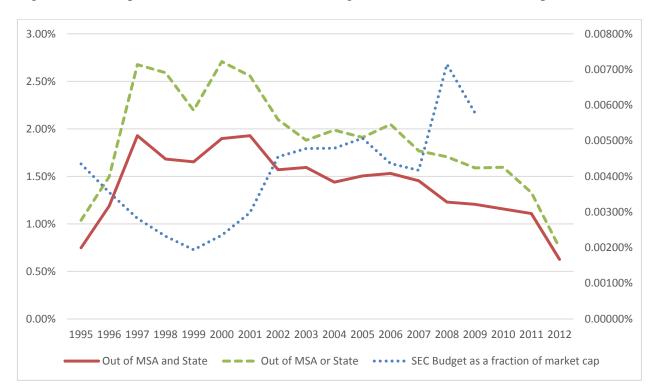
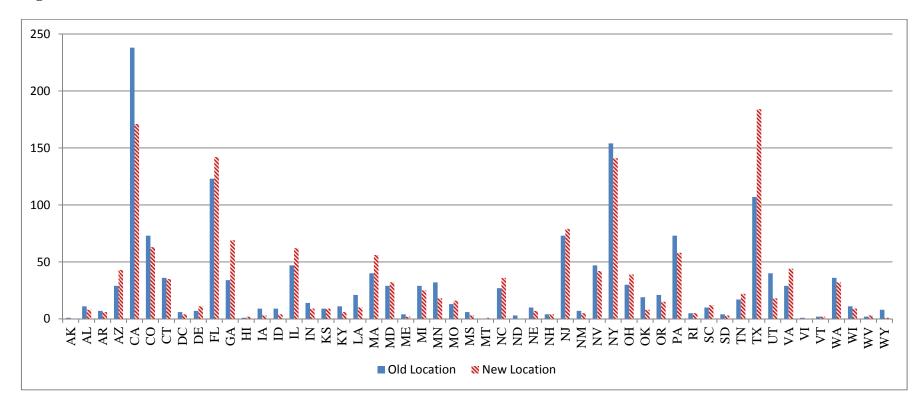


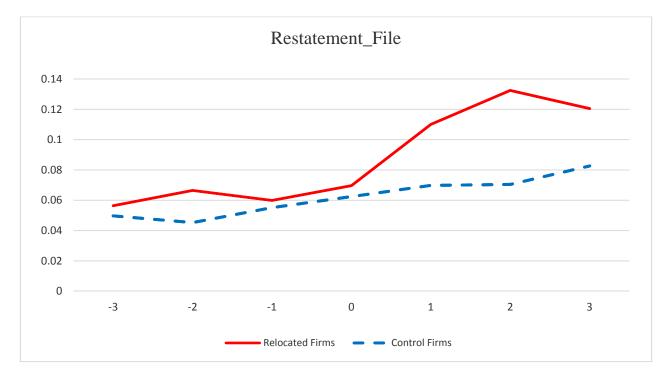
Figure 1A: Headquarters Relocations and SEC Budget in 2009 Thousand Dollars

Figure 1B: Headquarters Relocations and SEC Budget as a Fraction of Market Capitalizations





# **Figure 2: Distribution of States Before and After Relocations**



**Figure 3: Probability of Filing Restatements around Headquarters Relocations for Relocated Firms and Matched Firms** 

# Table 1: Annual Statistics on Corporate Headquarters Relocation

This table presents the annual frequency of corporate headquarters relocation. Annual statistics are presented for out-of-state and out-of-MSA relocation separately. Our sample comprises Compustat firm years that have 10-K filings available from EDGAR from 1994 to 2012.

Year	Number of Obs.	Moves (out of state)	Moves (out of MSA)	Moves (both out of state and out of	Moves (either out of state or out of
			MSA)	MSA)	MSA)
	#	%	%	1.1.51 1)	1.1.01 1)
1995	4,140	0.87%	0.92%	0.75%	1.04%
1996	4,876	1.27%	1.42%	1.19%	1.50%
1997	7,622	2.20%	2.40%	1.93%	2.68%
1998	7,487	1.94%	2.34%	1.68%	2.59%
1999	7,561	1.77%	2.08%	1.65%	2.20%
2000	7,533	2.10%	2.51%	1.90%	2.71%
2001	7,312	2.16%	2.32%	1.93%	2.56%
2002	7,009	1.71%	1.95%	1.57%	2.10%
2003	6,648	1.65%	1.82%	1.59%	1.88%
2004	6,392	1.64%	1.78%	1.44%	1.99%
2005	6,179	1.65%	1.76%	1.51%	1.91%
2006	6,009	1.61%	1.96%	1.53%	2.05%
2007	5,711	1.54%	1.68%	1.45%	1.77%
2008	5,450	1.36%	1.58%	1.23%	1.71%
2009	5,223	1.26%	1.53%	1.21%	1.59%
2010	5,014	1.22%	1.54%	1.16%	1.60%
2011	4,960	1.15%	1.29%	1.11%	1.33%
2012	4,944	0.67%	0.71%	0.63%	0.75%
All	110,070	1.61%	1.83%	1.47%	1.97%

# Table 2: Stated Reasons for (Out of State) Relocation

This table presents summary statistics of the self-reported reasons for relocation for our sample firms that relocated their headquarters to another state between 1995 and 2012. The data are collected from 10-K filings.

	Ν	%
<u>Business expansion/change</u>	<u>924</u>	<u>57.00</u>
Merger or asset purchase	506	31.22
Business expansion (introduction of new products, expansion of production, etc.)	34	2.10
Refocusing of resources/production, change of business nature, or sector specialization/agglomeration	160	9.87
Change of (or proximity to) customers or access to new markets	49	3.02
Capcity reduction/asset divestitures	158	9.75
Spin-off/IPO	17	1.05
<u>Cost savings</u>	<u>645</u>	<u>39.79</u>
Reduce operating expenses, lower labor costs, or tax savings	221	13.63
Facility consolidation	201	12.40
Proximity to suppliers	6	0.37
Proximity to production/increase production efficiency	143	8.82
Proximity to services (lawyers, financial services, etc.) and infrastructure (e.g. major airport)	36	2.22
Proximity to human capital	38	2.34
Change of stakeholders	<u>268</u>	<u>16.53</u>
Change of or close to top managers/CEO preference	170	10.49
Change of (or proximity to) owners or major shareholders	96	5.92
Change of (or promixity to) major lenders	2	0.12
Other reasons	<u>68</u>	<u>4.19</u>
Natural disaster or sudden event	6	0.37
Regulations and legal changes (e.g. change of state laws)	2	0.12
Better environment/amenities	15	0.93
Bankruptcy/distress	40	2.47
Litigation	5	0.31
<u>Multiple reasons</u>	<u>444</u>	<u>27.39</u>
<u>No explicit reasons</u>	<u>228</u>	<u>14.07</u>

## **Table 3: Summary Statistics on Relocation**

This table presents summary statistics that describe corporate relocation in our sample from 1995 to 2012. The old and new headquarters locations are compared in dimensions such as population, housing cost, amenity score, corporation income tax rate, personal income tax rate, industry clusering, and distance to financial centers.

	Ν	Mean	Std	25th	Median	75th
Distance between New and Old Locations						
Distance of relocation	1,579	1,117	757	525	963	1,622
	1,577	1,117	151	525	200	1,022
Population in Million (MSA)						
At the old location (A)	1,426	7.02	7.23	1.56	4.11	7.61
At the new location (B)	1,426	6.93	6.90	1.64	4.67	7.61
P-value of the test on difference of (A) and (B)		0.744			0.748	
Housing Cost (MSA)						
At the old location (A)	1,426	0.173	0.278	-0.032	0.126	0.411
At the new location (B)	1,426	0.145	0.243	-0.037	0.075	0.411
P-value of the test on difference of (A) and (B)		0.004			0.008	
Amenity Score (MSA)						
At the old location (A)	1,426	0.069	0.109	-0.012	0.050	0.163
At the new location (B)	1,426	0.058	0.096	-0.014	0.031	0.163
P-value of the test on difference of (A) and (B)		0.004			0.008	
State Corporation Income Tax Rate						
Rate at the old location (A)	1,578	10.203	26.428	5.000	8.000	9.000
Rate at the new location (B)	1,578	9.292	24.666	4.800	7.000	8.840
P-value of the test on difference of (A) and (B)		0.266			0.001	
State Personal Income Tax Rate						
Rate at the old location (A)	1,578	4.612	3.532	0.000	6.000	7.000
Rate at the new location (B)	1,578	4.068	3.485	0.000	4.850	6.850
P-value of the test on difference of (A) and (B)		0.000			0.000	
Industry Clustering (State)						
Number of firms with same 2-sigit SIC at the old location (A)	1,577	25.306	47.030	3	9	24
Number of firms with same 2-sigit SIC at the new location (B)	1,577	27.826	45.128	4	11	29
P-value of the test on difference of (A) and (B)		0.100			0.001	
Distance to Financial Centers						
From the old location (A)	1,579	271	296	26	173	463
From the new location (B)	1,579	269	300	21	164	474
P-value of the test on difference of (A) and (B)		0.797			0.529	

# Table 4: Financial Misconduct and the Probability of Headquarter Relocation

This table presents the Logit (Panel A) and OLS (Panel B) regressions on headquarters relocation. The dependent variable takes on the value of one if a firm relocates its headquarters in a given year. Explanatory variables are taken from the fiscal year before the headquarters relocation. Our sample comprises Compustat firm years that have 10-K filings available from EDGAR from 1994 to 2012. Year fixed effects, industry fixed effects at the two-digit SIC level, and state fixed effects are included in all regressions. Standard errors are clustered at the firm level. All variables are defined in Appendix Table 1.

Panel A: Logit	(1)	(2)	(3)	(4)
Log(froud score)	0.353***			
Log(fraud score)	(0.094)			
Restatement_Class	(0.094)	0.295***		
Restatement_Class		(0.092)		
Abnormal accrurals		(0.092)	0.235***	
Autorinar accrurais			(0.081)	
Abnormal accrurals (performance)			(0.001)	0.294***
(performance)				(0.094)
ROA	-0.338***	-0.224***	-0.256***	-0.366***
	(0.061)	(0.047)	(0.076)	(0.062)
Market-to-book	-0.021**	-0.008	-0.021***	-0.018**
	(0.008)	(0.006)	(0.008)	(0.008)
Sales growth	-0.635***	-0.438**	-0.535***	-0.517***
C	(0.185)	(0.185)	(0.173)	(0.173)
Log (age)	-0.093	-0.182***	-0.148***	-0.144**
	(0.063)	(0.054)	(0.057)	(0.057)
Log (sales)	-0.135***	-0.143***	-0.117***	-0.111***
-	(0.022)	(0.018)	(0.020)	(0.020)
Industry cluster	-0.238***	-0.272***	-0.261***	-0.261***
	(0.044)	(0.042)	(0.041)	(0.041)
Constant	-13.820***	-15.247***	-15.151***	-15.231***
	(1.551)	(1.365)	(1.353)	(1.459)
Year FE	Y	Y	Y	Y
State FE	Ŷ	Ŷ	Ŷ	Ŷ
Two-Digit SIC FE	Ŷ	Ŷ	Ŷ	Ŷ
Ν	59,346	74,025	67,223	67,223
Pseudo R-squared	0.053	0.071	0.056	0.056

Panel B: OLS	(1)	(2)	(3)	(4)
Log(fraud score)	0.007***			
Log(made score)	(0.002)			
Restatement class	(0.002)	0.004***		
Restatement enuss		(0.001)		
Abnormal accrurals		(0.001)	0.009***	
			(0.003)	
Abnormal accrurals (performance)			(0.000)	0.010***
(performance)				(0.003)
ROA	-0.010***	-0.005***	-0.009***	-0.012***
	(0.002)	(0.001)	(0.002)	(0.002)
Market-to-book	-0.000*	0.000	-0.000**	0.000
	(0.000)	(0.000)	(0.000)	(0.000)
Sales growth	-0.009***	-0.006**	-0.007***	-0.007***
e	(0.003)	(0.002)	(0.003)	(0.003)
Log (age)	-0.001	-0.002***	-0.002**	-0.002**
	(0.001)	(0.001)	(0.001)	(0.001)
Log (sales)	-0.002***	-0.002***	-0.001***	-0.001***
	(0.000)	(0.000)	(0.000)	(0.000)
Industry cluster	-0.004***	-0.004***	-0.004***	-0.004***
	(0.001)	(0.001)	(0.001)	(0.001)
Constant	0.028***	0.033***	0.033***	0.033***
	(0.003)	(0.003)	(0.003)	(0.003)
Year*Two-Digit SIC FE	Y	Y	Y	Y
Year*State FE	Y	Y	Y	Y
Ν	60,557	75,461	68,204	68,204
R-squared	0.038	0.031	0.034	0.034

## Table 5: Multinomal Logit by Enforcement Intensity of the Regional SEC Offices

This table presents Multinomial Logit regressions on headquarters relocation. The dependent variable identifies if a firm moved to a location with more stringent SEC enforcement, to a location with less stringent SEC enforcement, or did not relocate. SEC enforcement is measured by the number of AAERs brought by the regional SEC office scaled by the number of firms in that state. We then calculate the difference in SEC enforcement between the new and the old locations in the three-year window prior to the headquarters relocation. If the difference lies below (at or above) the median, we refer to the relocation as moving into a location with less (more) SEC enforcements. Explanatory variables are taken from the fiscal year before the headquarters relocation. Our sample comprises Compustat firm years that have 10-K filings available from EDGAR from 1994 to 2012. Year fixed effects, industry fixed effects at the two-digit SIC level, and state fixed effects are included in all regressions. Standard errors are clustered at the firm level. All variables are defined in Appendix Table 1.

	(1)		(2	(2)		(3)		(4)	
	Less	More	Less	More	Less	More	Less	More	
	enforcement								
Log(fraud score)	0.906***	0.424							
	(0.263)	(0.263)							
Restatement_Class			0.365***	0.278**					
			(0.140)	-0.123					
Abnormal accrurals					0.365***	0.152			
					(0.130)	-0.106			
Abnormal accrurals (performance)							0.364**	0.225*	
<b>~</b>							(0.156)	-0.123	
ROA	-0.178*	-0.443***	-0.075	-0.243***	-0.052	-0.421***	-0.224**	-0.491***	
	(0.106)	(0.070)	(0.062)	-0.042	(0.128)	-0.092	(0.105)	-0.075	
Market-to-book	-0.023*	-0.019*	0.002	(0.003)	-0.026**	-0.020*	-0.022*	-0.018*	
	(0.014)	(0.011)	(0.009)	-0.007	(0.012)	-0.01	(0.012)	-0.01	
Sales growth	-0.493*	-0.751***	-0.622**	(0.384)	-0.368	-0.671***	-0.358	-0.661***	
-	(0.264)	(0.268)	(0.297)	-0.269	(0.249)	-0.245	(0.250)	-0.245	
Log (age)	-0.161*	0.006	-0.288***	(0.048)	-0.245***	-0.066	-0.241***	-0.064	
	(0.096)	(0.082)	(0.083)	-0.068	(0.082)	-0.073	(0.082)	-0.073	
Log (sales)	-0.135***	-0.119***	-0.127***	-0.148***	-0.120***	-0.097***	-0.112***	-0.094***	
	(0.032)	(0.026)	(0.027)	-0.021	(0.029)	-0.024	(0.029)	-0.024	
Industry cluster	-0.127**	-0.162***	-0.118**	-0.173***	-0.137***	-0.176***	-0.134***	-0.174***	
	(0.050)	(0.040)	(0.048)	-0.037	(0.045)	-0.037	(0.046)	-0.037	
Constant	-5.704***	-7.347***	-4.535***	-7.457***	-5.107***	-6.975***	-5.100***	-6.974***	
	(0.593)	(0.520)	(0.435)	-0.409	(0.515)	-0.459	(0.511)	-0.458	
Ν	60,	557	75,4	461	68,204		68,204		
Pseudo R-squared	0.	04	0.0	56	0.0	)43	0.0	043	

## Table 6: Multinomal Logit by Self-Reported Reasons for Headquarters Relocation

This table presents Multinomial Logit regressions on headquarters relocation. The dependent variable identifies whether a firm disclosed explicit reasons for its relocation, disclosed no explicit reason for its relocation, or did not relocate. We define explicit reasons as when a firm clearly discloses one or multiple reasons for its move in its 10-K filing, and no explicit reason as when such disclosure cannot be found in a firm's 10-K filing. Explanatory variables are taken from the fiscal year before the headquarters relocation. Our sample comprises Compustat firm years that have 10-K filings available from EDGAR from 1994 to 2012. Year fixed effects, industry fixed effects at the two-digit SIC level, and state fixed effects are included in all regressions. Standard errors are clustered at the firm level. All variables are defined in Appendix Table 1.

	(1	)	(2	2)	(3)		(4)	
	No Explicit	Explicit						
	Reasons	Reasons	Reasons	Reasons	Reasons	Reasons	Reasons	Reasons
Log(fraud score)	0.546**	0.301***						
	(0.223)	(0.100)						
Restatement_Class			0.438**	0.268***				
			(0.222)	(0.096)				
Abnormal accrurals					0.468***	0.204**		
					(0.171)	(0.087)		
Abnormal accrurals (performance)							0.365**	0.276***
							(0.186)	(0.103)
ROA	0.018	-0.403***	-0.128	-0.214***	0.213	-0.349***	-0.026	-0.442***
	(0.178)	(0.060)	(0.105)	(0.036)	(0.167)	(0.079)	(0.158)	(0.064)
Market-to-book	0.003	-0.026***	0.004	-0.004	0.000	-0.027***	0.005	-0.025***
	(0.018)	(0.009)	(0.012)	(0.006)	(0.015)	(0.009)	(0.014)	(0.008)
Sales growth	-0.429	-0.662***	-0.194	-0.477**	-0.361	-0.541***	-0.355	-0.530***
	(0.548)	(0.191)	(0.582)	(0.200)	(0.485)	(0.181)	(0.489)	(0.181)
Log (age)	-0.310**	-0.041	-0.251*	-0.113**	-0.427***	-0.098*	-0.419***	-0.095*
	(0.157)	(0.063)	(0.129)	(0.054)	(0.145)	(0.056)	(0.144)	(0.056)
Log (sales)	-0.220***	-0.104***	-0.173***	-0.125***	-0.203***	-0.089***	-0.192***	-0.084***
	(0.051)	(0.020)	(0.042)	(0.017)	(0.046)	(0.019)	(0.046)	(0.019)
Industry cluster	-0.080	-0.180***	-0.119	-0.170***	-0.147*	-0.181***	-0.146*	-0.178***
	(0.081)	(0.033)	(0.077)	(0.031)	(0.077)	(0.031)	(0.078)	(0.031)
Constant	-6.949***	-5.712***	-6.386***	-5.638***	-6.111***	-5.495***	-6.077***	-5.500***
	(0.930)	(0.392)	(0.760)	(0.311)	(0.813)	(0.356)	(0.807)	(0.355)
N	60,557		75,461		68,204		68,204	
Pseudo R-squared	0.0	40	0.0	52	0.0	)44	0.0	)44

#### Table 7: Evidence on the Likelihood of Headquarters Relocation after Shocks

This table presents OLS regressions using local enforcement shocks. We define an SEC region as experiencing an AAER shock in a given year if the number of enforcement actions brought by its regional SEC office increases the most in year T compares to the average enforcement rate over the prior three years (i.e., the largest increase out of the eleven offices). The treatment and control firms are matched based on Fraud scores. The dependent variable takes on the value of one if a firm relocates its headquarters in a given year. Our independent variable of interest is the interaction of the shock variable and measures of financial misconduct. All explanatory variables are taken from the fiscal year before the headquarters relocation. Our sample comprises Compustat firm years that have 10-K filings available from EDGAR from 1994 to 2012. Year fixed effects, industry fixed effects at the two-digit SIC level, and state fixed effects are included in all regressions. Standard errors are clustered at the firm level. All variables are defined in Appendix Table 1.

	(1)	(2)	(3)	(4)	(5)
Log(fraud score)×Enforcement shock	0.010*				
Log(madd score)*Linorcement shock	(0.006)				
Log(fraud score)	0.006***				
	(0.002)				
High fraud score dummy×Enforcement shock	(0.00-)	0.005*			
,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,,		(0.002)			
High fraud score dummy		0.003**			
		(0.001)			
Restatement_Class×Enforcement shock			0.004		
			(0.005)		
Restatement_Class			0.004***		
			(0.001)		
Abnormal accrurals×Enforcement shock				-0.005	
				(0.008)	
Abnormal accrurals				0.009***	
				(0.003)	
Abnormal accrurals (performance)×Enforcement shock					
Tonormal accrutats (performance)/ Emorecinem shoek					-0.005
					(0.008)
Abnormal accrurals (performance)					0.010***
	0.010/w/w/	0.0104444	0.0054444	0.000.000	(0.004)
ROA	-0.010***	-0.010***	-0.005***	-0.009***	-0.012***
	(0.002)	(0.002)	(0.001)	(0.002)	(0.002)
Market-to-book	-0.000*	-0.000*	0.000	-0.000**	0.000
Calas anoth	(0.000) -0.009***	(0.000) -0.008***	(0.000)	(0.000) -0.007***	(0.000)
Sales growth			-0.006**		-0.007***
	(0.003) -0.001	(0.003) -0.001	(0.002) -0.002***	(0.003) -0.002**	(0.003) -0.002**
Log (age)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Log (sales)	-0.002***	-0.001***	-0.002***	-0.001***	-0.001***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Industry cluster	-0.004***	-0.004***	-0.004***	-0.004***	-0.004***
industry cruster	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Constant	0.028***	0.028***	0.033***	0.033***	0.033***
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
	()	()	()	()	()
Year*Two-Digit SIC FE	Y	Y	Y	Y	Y
Year*State FE	Y	Y	Y	Y	Y
Ν	60,557	60,557	75,461	68,204	68,204
R-squared	0.038	0.038	0.031	0.034	0.034

## Table 8: Evidence on the Likelihood of Headquarters Relocation after Director Shocks

This table presents OLS regressions using director turnover shocks. We define director turnover shocks as when the regional office's enforcement activities are in the bottom half among all offices in the three years prior to the turnover and the incoming director is one from another SEC office. The dependent variable takes on the value of one if a firm relocates its headquarters in a given year. Our independent variable of interest is the interaction of the shock variable and measures of financial misconduct. All explanatory variables are taken from the fiscal year before the headquarters relocation. Our sample comprises Compustat firm years that have 10-K filings available from EDGAR from 1994 to 2012. Year fixed effects, industry fixed effects at the two-digit SIC level, and state fixed effects are included in all regressions. Standard errors are clustered at the firm level. All variables are defined in Appendix Table 1.

	(1)	(2)	(3)	(4)	(5)
Log(fraud score)×Director shock	0.019				
	(0.012)				
Fraud score	0.006***				
	(0.002)				
High fraud score dummy×Director shock		0.015**			
		(0.007)			
High fraud score dummy		0.003***			
		(0.001)			
Restatment_Class×Director shock			0.000		
			(0.006)		
Restatment_Class			0.004***		
			(0.001)		
Abnormal accrurals×Director shock				0.016	
				(0.021)	
Abnormal accrurals				0.009***	
				(0.003)	0.040
Abnormal accrurals (performance)×Director shock					0.042
					(0.028)
Abnormal accrurals (performance)					0.009***
ROA	-0.010***	-0.010***	-0.005***	-0.009***	(0.003) -0.012***
KOA	(0.002)	(0.002)	(0.001)	(0.002)	(0.002)
Market-to-book	-0.000*	-0.000*	0.000	-0.000**	0.000
Market to book	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Sales growth	-0.009***	-0.008***	-0.006**	-0.007***	-0.007***
Suice Brown	(0.003)	(0.003)	(0.002)	(0.003)	(0.003)
Log (age)	-0.001	-0.001	-0.002***	-0.002**	-0.002**
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Log (sales)	-0.002***	-0.001***	-0.002***	-0.001***	-0.001***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Industry cluster	-0.004***	-0.004***	-0.004***	-0.004***	-0.004***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Constant	0.028***	0.031***	0.033***	0.033***	0.033***
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Year*Two-Digit SIC FE	Y	Y	Y	Y	Y
Year*State FE	Ŷ	Y	Y	Y	Ŷ
Ν	60,557	60,557	75,461	68,204	68,204
R-squared	0.038	0.038	0.031	0.034	0.034

## Table 9: Analyst Coverage, Firm Size, and the Probability of Headquarters Relocation

This table presents the OLS regression on headquarters relocation with comparison between subsamples. Panel A splits the sample by the level of analyst coverage. "Low analyst coverage" is set to one for firms with below-median (yet non-zero) analyst coverage. "No analyst coverage" is set to one for firms with no analyst coverage. Panel B splits the sample by firm size. "Medium firms" is set to one for the middle tercile of firms sorted by sales each year, and "Small firms" is set to one for the bottom tercile of firms sorted by sales each year. The dependent variable takes on the value of one if a firm relocates its headquarters in a given year. Explanatory variables are taken from the fiscal year before the headquarters relocation. Our sample comprises Compustat firm years that have 10-K filings available from EDGAR from 1994 to 2012. Year fixed effects, industry fixed effects at the two-digit SIC level, and state fixed effects are included in all regressions. Standard errors are clustered at the firm level. All variables are defined in Appendix Table 1.

Donal A. Analyst Coverage	(1)	( <b>2</b> )	(2)	(4)
Panel A: Analyst Coverage	(1)	(2)	(3)	(4)
Log(fraud score)	0.001			
205(11000 0000)	(0.002)			
Log(fraud score)×Low analyst coverage	0.004			
	(0.003)			
Log(fraud score)×No analyst coverage	0.008**			
Log(mudd beore) / (o unarjst coverage	(0.003)			
Restatement class	()	0.001		
		(0.002)		
Restatement class*Low analyst coverage		0.005*		
		(0.003)		
Restatement class*No analyst coverage		0.005		
r c		(0.003)		
Abnormal accrurals			-0.006*	
			(0.003)	
Abnormal accrurals×Low analyst coverage			0.011*	
			(0.006)	
Abnormal accrurals×No analyst coverage			0.016***	
-			(0.004)	
Abnormal accrurals (performance)				-0.006
				(0.004)
Abnormal accrurals (performance)×Low analyst coverage				0.011*
-				(0.006)
Abnormal accrurals (performance)×No analyst coverage				0.017***
				(0.006)
Low analyst coverage	-0.003	-0.002*	-0.002	-0.001
	(0.002)	(0.001)	(0.001)	(0.001)
No analyst coverage	0.004*	0.008***	0.007***	0.009***
	(0.003)	(0.001)	(0.001)	(0.001)
ROA	-0.010***	-0.005***	-0.008***	-0.012***
	(0.002)	(0.001)	(0.002)	(0.002)
Market-to-book	0.000	0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)
Sales growth	-0.007***	-0.004*	-0.006**	-0.005**
	(0.003)	(0.002)	(0.003)	(0.003)
Log (age)	-0.001*	-0.002**	-0.002***	-0.002***
	(0.001)	(0.001)	(0.001)	(0.001)
Log (sales)	-0.001	-0.001***	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)
Industry cluster	-0.004***	-0.004***	-0.004***	-0.004***
	(0.001)	(0.001)	(0.001)	(0.001)
Constant	0.024***	0.026***	0.027***	0.025***
	(0.004)	(0.003)	(0.003)	(0.003)
		<b>.</b> -	<b>.</b> -	<b>.</b> -
Year*Two-Digit SIC FE	Y	Y	Y	Y
Year*State FE	Y	Y	Y	Y
			60 60 f	(1) (1)
N	60,557	75,461	68,204	68,204
R-squared	0.040	0.032	0.035	0.035

	(1)		(2)	(4)
Panel B: Firm Size	(1)	(2)	(3)	(4)
Log(fraud score)	-0.002			
Log(nuud score)	(0.002)			
Log(fraud score)×Medium firms	0.014***			
	(0.004)			
Log(fraud score)×Small firms	0.009**			
	(0.004)			
Restatement class	(0.000.)	0.000		
		(0.002)		
Restatement class×Medium firms		0.007***		
		(0.003)		
Restatement class×Small firms		0.008*		
		(0.004)		
Abnormal accrurals		. ,	0.003	
			(0.005)	
Abnormal accrurals×Medium firms			0.010	
			(0.007)	
Abnormal accrurals×Small firms			0.006	
			(0.006)	
Abnormal accrurals (performance)				0.000
				(0.006)
Abnormal accrurals (performance)×Medium firms				0.009
				(0.008)
Abnormal accrurals (performance)×Small firms				0.011
				(0.007)
Medium Firms	-0.014***	-0.009***	-0.006***	-0.005***
	(0.003)	(0.002)	(0.002)	(0.002)
Small Firms	-0.012***	-0.010***	-0.006**	-0.006**
	(0.004)	(0.003)	(0.003)	(0.003)
ROA	-0.009***	-0.005***	-0.008***	-0.012***
	(0.002)	(0.001)	(0.002)	(0.002)
Market-to-book	-0.000*	0.000	-0.000**	-0.000*
	(0.000)	(0.000)	(0.000)	(0.000)
Sales growth	-0.009***	-0.006**	-0.007***	-0.007***
	(0.003)	(0.002)	(0.003)	(0.003)
Log (age)	-0.001	-0.002***	-0.002***	-0.002**
	(0.001)	(0.001)	(0.001)	(0.001)
Log (sales)	-0.002***	-0.003***	-0.002***	-0.002***
	(0.001)	(0.000)	(0.001)	(0.001)
Industry cluster	-0.004***	-0.004***	-0.004***	-0.004***
~	(0.001)	(0.001)	(0.001)	(0.001)
Constant	0.042***	0.046***	0.041***	0.041***
	(0.005)	(0.004)	(0.004)	(0.004)
	••			<b>X</b> 7
Year*Two-Digit SIC FE	Y	Y	Y	Y
Year*State FE	Y	Y	Y	Y
N.		75 461	<b>CO 201</b>	<b>CD 204</b>
N	60,557	75,461	68,204	68,204
R-squared	0.039	0.031	0.034	0.034

# **Table 10: Comparing Treated and Matched Firms**

This table presents summary statistics that compare relocated firms with matched firms that do not move in the year preceding the relocations. For each firm that moves (treatment), we find one matched non-mover firms (control) using propensity score matching by year, SEC office region, and the probability of relocation. All variables are defined in Appendix Table 1.

	Treated		Ma		
	Ν	Mean	Ν	Mean	Diff of mean (p-value)
Ex ante measures of misreporting					
Log(fraud score)	816	0.622	816	0.639	0.41
Abnormal accrurals	804	0.387	801	0.388	0.97
Abnormal accrurals (performance)	804	0.055	801	0.033	0.31
Restatement class	722	0.188	722	0.133	0.00
Firm characteristics					
Probability of relocation	816	0.027	816	0.025	0.28
ROA	816	-0.375	816	-0.423	0.33
Market-to-book	816	3.711	816	3.997	0.44
Sales growth	816	0.009	816	0.038	0.03
Age	791	15.485	794	15.293	0.75
Sales	816	3.222	816	3.328	0.49
Industry cluster	750	2.191	744	2.265	0.26

## Table 11: Evidence on "Caught" and "Uncaught" Financial Misconduct Around Headquarters Relocation

This table presents OLS regressions on the difference-in-difference matching results comparing firms that move and do not move. For each firm that moves (treated), we find one matched non-mover firms (control) using propensity matching by year, SEC regional office, and the probability of relocation. Our sample includes three years before and three years after the move for the treatment and control group, after removing firms which had AAERs or Class Actions in the three years before the relocation. The dependent variable is a set of caught and uncaught financial misconduct measures and the independent variables are treat, which identifies the firm that moved, post, which identifies the years after the move, and post\*treat, which is the interaction between the two variables. Panel A includes all headquarters relocation. Panel B considers only the subsample of headquarters relocation to a jurisdiction with weaker SEC enforcement. Panel C considers only the subsample of relocated firms with no analyst coverage. Year\*Industry fixed effects are included and standard errors are clustered at the firm level. All variables are defined in Appendix Table 1.

#### **Panel A: All Relocations**

	(1)	(2)	(3)	(4)
	Log(fraud score)	Restatement_File	AAER	Class actions
Post×Treat	0.044**	0.048***	0.001	-0.005*
	(0.022)	(0.017)	(0.001)	(0.003)
Post	-0.010	-0.007	0.001	0.007***
	(0.015)	(0.011)	(0.001)	(0.002)
Treat	0.037*	0.012	0.000	0.001
	(0.019)	(0.013)	(0.000)	(0.001)
Ν	7,359	6,162	8,332	8,332
R-squared	0.18	0.144	0.202	0.203

#### Panel B: Move to Less Enforcement

	(1)	(2)	(3)	(4)
	Log(fraud score)	Restatement_File	AAER	Class actions
Post×Treat	0.082**	0.113***	0.000	-0.002
	(0.041)	(0.033)	(0.003)	(0.003)
Post	0.006	-0.040*	0.002	0.003
	(0.028)	(0.021)	(0.002)	(0.003)
Treat	0.029	-0.031	-0.001	0.000
	(0.033)	(0.025)	(0.001)	(0.001)
Ν	2,720	1,979	2,720	2,720
R-squared	0.265	0.277	0.028	0.353

#### Panel C: No Analyst

	(1)	(2)	(3)	(4)
	Log(fraud score)	Restatement_File	AAER	Class actions
Post×Treat	0.080***	0.058***	0.001	-0.003
1 050° 11000	(0.028)	(0.021)	(0.001)	(0.003)
Post	-0.014	-0.024*	0.001	0.004**
	(0.018)	(0.014)	(0.001)	(0.002)
Гreat	0.008	-0.001	0.000	0.000
	(0.024)	(0.016)	(0.000)	(0.000)
N	5,376	4,404	6,158	6,158
R-squared	0.19	0.184	0.328	0.246

#### Appendix Table 1: Variable Definitions and Data Sources

This table presents the definition and sources of the variables used in the study and shows the summary statistics of the variables.

Variable name	Variable definition	Sources	Ν	Mean	Std	25th	Median	75th
Fraud and earnings management								
Log (fraud score)	The firm's probability of fraud based on the fraud model of Dechow et al. (2011) divided by the unconditional probability of fraud. We calculate predicted probability using the coefficient estimates from Dechow et al. (2011). Predicted Value= -7.893+0.79*rst_acc 2.518*ch_rec+ 1.191*ch_inv + 1.979*soft_assets+0.171*ch_cs+(-0.932)*ch_roa+1.029* issue. RSST accruals come from Richardson, Sloan, Soliman, and Tuna 2005. This measure extends the definition of WC accruals to include changes in long-term operating assets and long-term operating liabilities.WC=(Current Assets- Cash and Short-term Investments)-(Current Liab - Debt in Current Liab); NCO=(Total Assets - Current Assets - Investments and Advances) - (Total Liab - Current Liab - LT Debt); FIN=(ST Investments + LT Investment) - (LT Debt + Debt in Current Liab + Preferred Stock); Chg in Receivables is defined as chg in AR/Average Total Assets; Chg in Inventory is chg in Inventory/Average Total Assets; Soft Assets = [Total Assets; Chg in cash sales is Pte - Cash and Cash Equivalent]/Total Assets; Chg in cash sales is Pte tor in cash sales, cash sales=[Sales - Chg in AR]; Chg in ROA is Earnings_t/Average total asset_t - Earnings_t-1/Average total asset_t-1; Issue is an indicator variable equal to 1 if the firm issued securities		72,213	0.645	0.360	0.383		
Restatement_Class	Indicator equal to one if financial statements of a fiscal year are restated. The variable is only available from 1998.	Audit Analytics	85,945	0.136			0.000	
Abnormal accrurals	The absolute value of discretionary accruals, which is estimated by first calculating total accruals as the difference between net income and cash flow from operations, deflated by total assets, and then regressing total accruals on the change in sales less the change in receivables and gross property plant and equipment, both scaled by total assets to calculate the discretionaary accruals.	Compustat	82,295	0.221	0.434	0.048	0.116	0.224
Abnormal accrurals (performance)	A modified accrual measured based on Kothari, Leone and Wasley (2005) who match firms using return on assets and calculate performance matched discretionary accruals to control for the effect of performance on accruals.	Compustat	82,295	0.036	0.267	-0.043	0.011	0.083
Restatement_File	Indicator equal to one if a firm announces a restatement of an accounting report. The variable is only available from 2000.	Audit Analytics	70,851	0.072	0.259	0.000	0.000	0.000
AAER	Indicator equal to one when the financial statements of a given fiscal year are restated and investigated by the SEC, zere otherwise. Accounting and Auditing Enforcement Releases are issued by the SEC during or at the conclusion of an investigation against a company, an auditor, or an officer for alleged accounting and/or auditing misconduct. This variable is set equal to missing for fiscal years after 2010.	<ul> <li>Center for Financial Reporting and Management Center at the Haas School of Business</li> </ul>	110,070	0.002	0.049	0.000	0.000	0.000
Class actions	Indicator equal to one for fiscal years coinciding with the year when securities class action lawsuits are filed against the company, and zero otherwise. Dismissed cases are dropped for defining this variable.	Stanford Law School Securities Class Action Clearing House	110,070	0.008	0.089	0.000	0.000	0.000
Firm characteristics								
ROA	A firm's Operating Income Before Depreciation over its Total Assets per the Compustat Annual file	Compustat	108,594	-0.172	0.821	-0.023	0.070	0.142
Market-to-book	(Stock Price*Common Shares Outstanding + Current Liabilities + Long-Term Debt + Preferred Stock Liquidiation Value - Deferred Taxes and Investment Tax Credit) / Total Assets obtained from the Compustat Annual File	Compustat	108,594		4.903			
Sales growth	Sales from current year divided by the average of sales from last three years	Compustat	110,070	0.047	0.200		0.000	
Log (age)	Log of the years since the firm first appeared in the Compustat Annual File	Compustat	108,594		0.808			
Log (sales)	Log of Sales/Turnover obtained from the Compustat Annual File	Compustat	110,070	4.518	2.692	2.886	4.677	6.430
Industry cluster	The log of the number of firms in the same 2-digit SIC and MSA as the specified firm.	Compustat	101,720	2.287	1.254	1.099	2.079	3.296
Merger Firm	Indicator equal to one if firm is an acquirer in a year	SDC	110,070	0.247	0.431	0.000	0.000	0.000

# Appendix Table 2: List of SEC Regional Offices and AAERs by Regional Offices

SEC offices	States of jurisdication	# of states covered	Areas covered (km <sup>2</sup> )	# of firms Compustat covered (annual average)		otal # o	f AAER	RS		0	AAER er year)	
					95-00	01-05	06-10	All	95-00	01-05	06-10	All
Atlanta	GA, NC, SC, TN, AL	5	623,146	455	28	27	9	64	0.81%	1.08%	0.44%	0.78%
Boston	CT, MA, ME, NH, VT, RI	6	186,458	527	52	34	1	87	1.30%	1.26%	0.04%	0.89%
Chicago	IL, IN, IA, KY, MI, MN, MO, OH, WI	9	1,436,654	1,150	70	85	20	175	0.84%	1.39%	0.40%	0.87%
Denver	CO, KS, NE, NM, ND, SD, WY	7	1,634,136	266	32	19	5	56	1.57%	1.31%	0.45%	1.14%
Fort Worth	TX, OK, AR	3	1,014,388	653	46	54	19	119	1.00%	1.60%	0.62%	1.07%
Los Angeles	AZ, GU, HI, NV, CA(ZIP<=93599 except for 93200-93299)	5	822,450	1,256	53	44	6	103	1.01%	1.07%	0.17%	0.77%
Miami	FL, MS, LA, VI, PR	5	439,452	397	28	41	8	77	0.92%	1.88%	0.46%	1.07%
NewYork	NY, NJ	2	163,887	924	81	87	3	171	1.20%	1.75%	0.07%	1.02%
Philadelphia	PA, DE, MD, VA, WV, DC	6	331,580	632	29	29	4	62	0.62%	0.86%	0.13%	0.54%
Salt Lake	UT	1	219,887	71	2	6	0	8	0.36%	1.48%	0.00%	0.60%
San Francisco	WA, AK, OR, ID, MT, CA(ZIP>=93600 & 93200-93299)	6	2,966,593	1,301	62	61	10	133	1.15%	1.49%	0.30%	0.99%

# Appendix Table 3: Acquisitions and the Probability of Headquarters Relocation

Panel A reports the association between acquisition and relocation. Acquisition indicator is set to one if there is at least one acquisition in the firm year; Log(# of acquisitions) is the natural logarithm of the number of acquisitions; the two acquisition value indicators are set to one if the total assets acquired are more than 5 and 10 percent of the acquiring firm's assets, respectively. Panel B repeats Table 4 regression after excluding firms that have made at least one merger in a year. The dependent variable takes on the value of one if a firm relocates its headquarters in a given year. Explanatory variables are taken from the fiscal year before the headquarters relocation. Our sample comprises Compustat firm years that have 10-K filings available from EDGAR from 1994 to 2012. Year fixed effects, industry fixed effects at the two-digit SIC level, and state fixed effects are included in all regressions. Standard errors are clustered at the firm level. All variables are defined in Appendix Table 1.

Panel A: Acquisitions Firms Moves	(1)	(2)	(3)	(4)
Acquisition indicator	-0.359***			
	(0.088)			
Log(# of acquisitions)		-0.305***		
		(0.089)		
Total value of acquisitions $> 5\%$ of asset value			-0.131	
			(0.099)	
Total value of acquisitions $> 10\%$ of asset value				-0.145
				(0.112)
ROA	-0.252***	-0.254***	-0.249***	-0.249***
	(0.042)	(0.042)	(0.042)	(0.043)
Market-to-book	-0.009	-0.009	-0.009	-0.009
	(0.006)	(0.006)	(0.006)	(0.006)
Sales growth	-0.457***	-0.459***	-0.494***	-0.495***
	(0.170)	(0.170)	(0.169)	(0.169)
Log (age)	-0.135***	-0.137***	-0.138***	-0.138***
	(0.047)	(0.047)	(0.048)	(0.048)
Log (sales)	-0.122***	-0.123***	-0.133***	-0.133***
	(0.017)	(0.017)	(0.017)	(0.017)
Industry cluster	-0.262***	-0.261***	-0.261***	-0.261***
	(0.038)	(0.038)	(0.038)	(0.038)
Constant	-15.434***	-15.430***	-15.427***	-15.430***
	(1.601)	(1.588)	(1.257)	(1.414)
Year FE	Y	Y	Y	Y
State FE	Y	Y	Y	Y
Two-Digit SIC FE	Y	Y	Y	Y
Ν	87,538	87,538	87,538	87,538
Pseudo R-squared	0.066	0.065	0.064	0.064

Panel B: Excluding Merger Firms	(1)	(2)	(3)	(4)
Log(fraud score)	0.369***			
Log(naud scole)	(0.103)			
Restatement class	(0.103)	0.257**		
		(0.101)		
Abnormal accrurals		(0.101)	0.235***	
			(0.086)	
Abnormal accrurals (performance)			(00000)	0.285***
······································				(0.102)
ROA	-0.308***	-0.225***	-0.246***	-0.357***
	(0.067)	(0.047)	(0.082)	(0.066)
Market-to-book	-0.016*	-0.008	-0.020**	-0.018**
	(0.009)	(0.006)	(0.008)	(0.008)
Sales growth	-0.485**	-0.227	-0.398**	-0.380*
-	(0.208)	(0.209)	(0.195)	(0.195)
Log (age)	-0.132*	-0.265***	-0.196***	-0.193***
	(0.069)	(0.057)	(0.061)	(0.061)
Log (sales)	-0.111***	-0.122***	-0.094***	-0.089***
	(0.024)	(0.020)	(0.023)	(0.022)
Industry cluster	-0.214***	-0.259***	-0.245***	-0.244***
	(0.049)	(0.046)	(0.045)	(0.045)
Constant	-13.486***	-15.142***	-15.290***	-15.324***
	(1.563)	(1.337)	(0.992)	(1.456)
Year FE	Y	Y	Y	Y
State FE	Ŷ	Ŷ	Ŷ	Ŷ
Two-Digit SIC FE	Ŷ	Ŷ	Y	Ŷ
Ν	43,738	54,867	49,500	49,500
Pseudo R-squared	0.051	0.073	0.053	0.054

# Appendix Table 4: Evidence on "Caught" and "Uncaught" Financial Misconduct Around Headquarters Relocation - Matched to Firms in New SEC Region

This table presents OLS regressions on the difference-in-difference matching results comparing firms that move and do not move. For each firm that moves (treated), we find one matched non-mover firms (control) using matching by year, SEC regional office moved into, and fraud score. Our sample includes three years before and three years after the move for the treatment and control group, after removing firms which had AAERs or Class Actions in the three years before the relocation. The dependent variable is a set of caught and uncaught financial misconduct measures and the independent variables are treat, which identifies the firm that moved, post, which identifies the years after the move, and post\*treat, which is the interaction between the two variables. Panel A includes all headquarters relocation. Panel B considers only the subsample of headquarters relocation to a jurisdiction with weaker SEC enforcement. Panel C considers only the subsample of relocated firms with no analyst coverage. Year\*Industry fixed effects are included and standard errors are clustered at the firm level. All variables are defined in Appendix Table 1.

	(1)	(2)	(3)	(4)
	Log(fraud score)	Restatement_File	AAER	Class actions
Post×Treat	0.062***	0.045**	0.002	-0.002
i osto i i ott	(0.023)	(0.018)	(0.001)	(0.003)
Post	-0.025	0.001	0.000	0.006**
	(0.016)	(0.012)	(0.000)	(0.002)
Treat	0.040**	0.025**	0.000	-0.001*
	(0.019)	(0.013)	(0.000)	(0.001)
N	6,189	5,221	6,794	6,794
R-squared	0.217	0.172	0.327	0.194

# Panel A: All Relocations

#### **Panel B: Move to Less Enforcement**

	(1)	(2)	(3)	(4)
	Log(fraud score)	Restatement_File	AAER	Class actions
Post×Treat	0.102***	0.068**	0.000	-0.002
	(0.039)	(0.034)	(0.003)	(0.002)
Post	-0.006	-0.002	0.002	0.002
	(0.027)	(0.020)	(0.002)	(0.003)
Treat	0.024	0.006	-0.001	0.000
	(0.031)	(0.023)	(0.001)	(0.000)
N	2,667	1,937	2,667	2,667
R-squared	0.295	0.32	0.141	0.68

#### Panel C: No Analyst

	(1)	(2)	(3)	(4)
	Log(fraud score)	Restatement_File	AAER	Class actions
Post×Treat	0.097***	0.035*	0.001	-0.003
	(0.029)	(0.021)	(0.001)	(0.003)
Post	-0.013	0.002	0.001	0.005**
	(0.020)	(0.015)	(0.001)	(0.003)
Treat	0.043*	0.024	0.000	-0.001
	(0.024)	(0.015)	(0.000)	(0.001)
N	4,398	3,633	4,889	4,889
R-squared	0.243	0.228	0.196	0.163