Why do executives commit financial fraud? Executive perquisites and corporate governance implications

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Abstract

This paper examines whether executive perquisites, CEO pay slice, and monitoring power forces are crucial factors in explaining the likelihood of executives committing financial fraud.

The issuance and disclosure of executive perquisites has been scrutinized in recent years, with the role of perks widely debated among market participants, scholars, and government regulators. While some support the incentive alignment views, others contend that lavish perks may be harmful to firm value. Although recent studies have confirmed the positive association between the likelihood of fraud within a firm and equity incentive schemes, studies have yet to examine whether different executive perquisites affect the likelihood of fraud differently. Given the discussion on the effects of perquisites, fraud within the firm serves as a natural experiment in defining the effect of executive perquisites. This serves as the main motivation of the current study.

This study contributes to the literature by hand-collecting both AAER fraud cases from the SEC and details on executive perquisites from firm proxy statements. Empirical studies on perquisites are scarce. This study advances such empirical investigation by exploring the association between different types of executive perquisites and their linkage with the likelihood of financial fraud. Overall, our results suggest that granting financial and severance perks to CEOs (and top executives), giving lower power to CEOs, and maintaining an adequate level of monitoring power might help to alleviate executive commission of financial fraud.

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INTRODUCTION

Over the past decade financial debacles in large US firms such as Enron and World Com not only damaged shareholder welfare, but have also drawn attention from regulators and scholars searching for the causes of these events. The scandals spurred a series of legislative policy reforms including the 2003 SOX Act, the 2004 FAS123R equity incentive scheme fair valuation model, and the 2006 SEC compensation disclosure rule reforms. In March of 2009, looking back on the scandals, former Federal Reserve Chairman Ben Bernanke observed that "*supervisors must pay close attention to compensation practices that can create mismatches between the rewards and risks borne by institutions or their managers*."

Based on agency problem theory, Jensen and Meckling (1976) suggest that executive compensation aligns the interests of firm executives with firm performance, and hence maximizes the performance of the firm. Their view has been supported by a number of empirical studies, including Brickley, Bhagat, and Lease (1985), Smith and Stulz (1985), Yermack (1995), Mehran (1995), Core and Guay (1999), Morgan and Poulsen (2001), Hanlon, Rajgopal, and Shevlin (2003), Hillgeist (2003) and Frye (2004). However, Burns and Kedia (2006), Denis, Hanouna, and Sarin (2006), Bruner, McKee, and Santore (2008), Peng and Röell (2008), Johnson, Ryan Jr., and Tian (2009), Feng, Ge, Luo, and Shevlin (2011) have contended that the likelihood of fraud is significantly linked to the executive compensation scheme. The majority of scholars argue that executive compensation plans may not only be unsuccessful in aligning the interests of executives with their firms, but may also tempt executives to commit financial fraud. Theoretical arguments and empirical findings suggest that executives may commit crimes such as financial fraud or accounting manipulation when the personal utility from the fraud surpasses the stimulation effect from the executive compensation scheme. Researchers have expressed concern that executive compensation may

misalign interests between agents and principals, destroying firm value.[1]

The aforementioned studies have proposed that stock options are more likely to be linked with fraud than other compensation components, because executives can obtain higher personal benefits by exercising vested options when market stock prices have peaked. Bruns and Kedia (2006) noted that "*incentives from options encourage aggressive accounting practices that result in a restatement*". However, perquisites, an important form of compensation, have been neglected in the discussion of impacts of executive compensation on fraud.

The issuance and disclosure of executive perquisites have been widely debated among market participants, scholars, and government regulators. Perquisites by their nature have three major differences from other forms of compensation. First, executive perquisites typically do not take the form of regular pay. A standard executive compensation package contains regular items such as cash compensation, and various forms of equity incentives, but not necessarily perks. An executive could have generous salary and options, but may not enjoy an extra package of perks. Second, unlike other compensation components which have a clear definition for calculating and reporting, perks are diverse and difficult to quantify. Following Andrews, Linn, and Yi (2009) and Grinstein, Weinbaum, and Yehuda (2011), using firm annual proxy statements, we collect and identify data on perks such as service perks, entertainment perks, home and family perks and financial perks, which are more personal benefits and may not be directly linked with the market performance of the firm. These different types of perquisites may affect the incentive alignments between executives and

[1] Carl Levin, U.S. Senator and the Chairman of the Permanent Subcommittee on Investigations, indicated in a letter to the Secretary of the U.S. Department of the Treasury, Henry Paulson, on October 20th, 2008 that:
"*It is unacceptable for financial institutions that have generated billions of dollars in losses, damaged the U.S. economy, and accepted a taxpayer bailout, to maintain past levels of compensation. For each financial institution that accepts taxpayer dollars, the Treasury should require it to detail its compensation plans publicly, prevent the payment of bonuses or severance payments, and require use of taxpayer dollars to get credit flowing again. Please describe your Department's plans and timetable for obtaining compensation data from each of the financial institutions receiving taxpayer funds, issuing appropriate compensation standards, and requiring compliance with those standards.*"

shareholders. Third, prior to the December 2006 SEC compensation disclosure reform, firms were required to report executive perks in a footnote of the summary compensation table when the perks exceeded a certain high threshold.[2] Scholars, market participants, and the SEC later recognized firm executives may also receive different forms of perquisites, which lead the SEC to introduce the Executive Compensation and Related Person Disclosure reform at the end of 2006. Under the new SEC compensation disclosure rule, the Summary Compensation Table in the firms' proxy statement has a new format, which requires firms to explicitly list each type and amount of perquisite in a separate section. Hence, unlike the enforcement of reporting of other forms of executive compensation, whether firms have issued and reported executive perks affects the firm's information transparency and governance quality. In sum, the distinctions between perquisites and other forms of compensation has implications for the principal-agent relationship. Elucidating these implications is the main motivation of our study.

Both scholars and regulators have argued that lavish perks can lead to fraud.[4]

Recent studies on the role of executive perquisites have generated two views. Yermack (2006), Andrews, Linn, and Yi (2009) and Grinstein, Weinbaum, and Yehuda (2011) all find significant negative short-term abnormal returns when firms disclose perquisites to the public. Faulkender, Kadyrzhanova, Prabhala, and Senbet (2010) reviewed the positive and negative aspects of executive compensation. They argue that lavish compensation payments such as stock options may induce managers to manipulate financial statements, leading to financial debacles, after the dot com bubble and the 2008 financial crisis.

Conversely, studies by Rosen (2000), Rajan and Wulf (2006), and Marino and

[2] The amended disclosure rule in 2006 lowered the perquisite disclosure reporting threshold. Under the previous rule, perks valued above $50,000 and 25% of total perks should be reported in proxy statements. Under the new rule, firms must disclose aggregate values of perks exceeding $10,000, and any perks worth $25,000 or 10% of the total perk amount.

[4] *USA Today* on 25th of April, 2012, also reported that "*the perk remains pervasive among regional bank and financial firms*."

Z´abojn´ık (2008) show that higher amounts of perks are associated with better governance quality and more efficient productivity. Rajan and Wulf (2006) discuss the association between perks and productivity, private benefit, status, and taxes. They suggest that perks and salary are "mutually reinforcing" incentive schemes. Rosen (2000) contends that perquisites to some extent provide motivation and enhance productivity. Marino and Z´abojn´ık (2008) suggest that perquisites serve the functions of consumption complementarities and productivity enhancement, especially when the production process is more uncertain.

Although recent studies have confirmed the positive association between likelihood of fraud and equity incentive schemes, no study has investigated whether differing executive perquisites have different effects on the likelihood of fraud. Occurrences of fraud within firms may serve as a natural experiment for clarifying the role of executive perquisites. The need for such research is a key motivation of the current study.

This study contributes to the literature by hand-collecting AAER fraud cases from the SEC and executive perquisite details from firm proxy statements. The scarcity of empirical studies on perquisites may be the result of poor data availability in ready-for-purchase databases. This study thus advances empirical investigations by evaluating the association between different types of executive perquisites and their linkage with the likelihood of financial fraud. This study follows the concepts of Andrews, Linn, and Yi (2009) and Grinstein, Weinbaum, and Yehuda (2011) and classifies perks into five main types, based on their content and purpose. This study postulates that various types of perks (such as legal services perks and financial perks) may generate different empirical results. In particular, we investigate whether the CEO Pay Slice (CPS), a Dummy of no analysts following a firm, and a Dummy of low institutional ownership may act as a type of monitoring enhancement or monitoring distortion, in the association between perquisites and the likelihood of fraud. These monitoring variables, which we believe are important, have been neglected in empirical studies related to fraud.

Our empirical finding generated results contrary to those of previous literature which found a positive association between fraud likelihood and executive options. We show that there is a significant negative relation between perks and the likelihood of financial fraud. Moreover, not disclosing perks is positively related to the likelihood of financial fraud. Our empirical results are consistent with the propositions of Fama (1980), Rajan and Wulf (2006), and Marino and Z´abojn´ık (2008), who argued that offering perks may be helpful for firms in designing optimal compensation contracts for firm executives.

Our main findings are summarized as follows. First, we show that firms in which fraud occurred reported smaller amounts of perks to CEOs/top executives than matched firms. Second, the likelihood of firms experiencing fraud is higher if there is no perk offering, if the CEO pay slice is larger, and if the monitoring power is relatively weak (no analysts following or low level of institutional ownership). Conversely, a firm is more likely to experience fraud if it is under high pressure to show short-term performance to monitors. This pressure is measured by the number of analysts following and the percentage of aggregate institutional shareholding. Such evidence of monitoring indicates that either no monitoring or too much pressure from monitors may induce fraud. In sum, we show that CEO/top executives committed fraud because they had a lower level of financial and severance perks, and were granted more power. Finally, the effect of CEO perquisites is more pronounced than that of the top five executives perquisites. This is unsurprising given the CEO's primary role in firm decisions.

The remainder of this study is organized as follows: Section 2 presents the literature review and hypotheses. Section 3 presents data selection and Section 4 covers methodology. The empirical results and analysis are presented in Section 5. Finally in section 6 the conclusions are drawn.

PREVIOUS LITERATURE, BACKGROUND AND HYPOTHESES

Executive Compensation and Financial Fraud

Although Jensen and Meckling (1976) suggest that executive compensation packages align the interests of managers and firms, Becker (1968) earlier argued that the "agent" might commit a crime when the utility of crime payoff exceeds the "disutility" of being caught in the process. Recently, Becker's point of view has been supported by Johnson, Ryan Jr., and Tian (2009).

Several theoretical studies highlight how executive equity-based compensation may induce managerial fraud. For instance, Goldman and Slezak (2006) and Bruner, McKee, and Santore (2008) show that equity-based incentive schemes exhibit a tradeoff between enhancing manager productive efforts and increasing managerial incentive to redirect firm resources to misreport performance or to commit fraud. Goldman and Slezak (2006) further analyze the regulatory changes of the Sarbanes-Oxley Act and show that policies aimed at reducing manipulation can actually induce manipulation. In addition, Chesney and Gibson (2008) present a continuous-time real options' pricing model, and find that managers who are offered stock options have a higher incentive to commit fraud than those who are offered common stocks.

A few studies have empirically examined the relation between executive compensation and firm fraud. To identify a sample of fraud firms, scholars have studied firms subject to class action lawsuits (Denis, Hanouna, and Sarin, 2006; Peng and Röell, 2008), fraud firms from AAER reports (Erickson, Hanlon, and Maydew, 2006; Johnson, Ryan Jr., and Tian, 2009), and firms that restate their financial reports due to accounting irregularities (Burns and Kedia, 2006).

The main findings indicate that executives' stock option incentive is positively associated with lawsuits, fraud events identified from AAER reports, and the restatement of financial reports. Denis, Hanouna, and Sarin (2006) also show this positive relation is stronger for firms with high outside blockholders and institutional ownership. Johnson, Ryan Jr., and Tian

(2009) provide further evidence that, during fraud periods, executives receive more total compensation, increase their exercised amount of vested options, and sell more unrestricted shares. The only exception is Erickson, Hanlon, and Maydew (2006), who find no evidence of a relationship between executive compensation and fraud, and no significant stock selling or options exercising behavior from fraudulent managers during the fraud period.

The majority of previous studies provide both theoretical or empirical support of the positive relationship between executive compensation (equity-based in particular) and the likelihood of managerial fraud. These findings indicate that executives may commit fraud when the personal utility gained from the fraud surpasses the stimulation effect from the executive compensation scheme. However, previous studies have explored executive equity incentives and the likelihood of financial fraud without accounting for the impact of other forms of executive compensation. Given the importance of executive perquisites for firms, policymakers, market participants, and scholars, there is an urgent need to further investigate their impact.

CEO/Executive Perquisite (Perks) and Financial Fraud

The agency theory of Jensen and Meckling (1976) and Grossman and Hart (1980) suggests that firm executives attempt to extract firm resources through perk consumption. Thus, perquisites are an agency cost to firm shareholders. Empirical studies by Yermack (2006), Andrews, Linn, and Yi (2009) and Grinstein, Weinbaum, and Yehuda (2009), all provide support for this view. Yermack (2006) examines CEO use of corporate jets and golf club memberships for personal purposes between 1993 and 2005. He found a negative market reaction around the announcement of perquisite consumption. Both Andrews, Linn, and Yi (2009) and Grinstein, Weinbaum, and Yehuda (2011) investigated the determinants of perks after the 2006 reforms to the disclosure rule by applying proxy statements in 2006-2007. Both studies confirmed that perks are associated with high and free cash flow, lower growth

opportunities, negative market reactions, and weaker corporate governance. Ferdinand, Cheng, and Leung (2011) examined the relationship between perks and share market prices in China, finding a negative relationship between the amount of perks offered and the informativeness of the underlying share price. The findings of these studies support the agency view of Jensen and Meckling (1976).

Another stream of literature considers perquisites as enhancing incentive effects or production efficiency. Fama (1980) argues that perks should be a part of optimal compensation contracts and serve as a motivational tool to enhance firm value. Rajan and Wulf (2006) view perks as having the ability to stimulate managers and possibly eliminate agency problems. They surveyed senior executives of firms between 1986 and 1999 and found that offering perks improved the productivity of senior managers. Marino and Z´abojn´ık (2008) suggest that perquisites complements work efforts and should associated with better corporate governance. They conclude that "*It is always optimal to provide perks free of charge.*" (Page 567) Ranjen and Wulf (2006) also contend that perks could motivate executives through provision of private benefits, status, and tax savings. Voßmerba¨umer (2013) investigates the issue of the tax treatment of workplace benefits (i.e. perks at work). They argue that personal benefits at work enhance the utility of work, and when these benefits are complimentary, the taxes incurred from the treatment should be at the expense of the employer. Two studies examining perk issues in China both find that perks enhance incentives and work efficiency (Adithipyangkul et al., 2011; Su and Liang, 2013).

Hence, studies of perks have generated inconclusive and conflicting results on their effects. Though disclosure of perks results in a negative short term market response in studies regarding perks as an agency cost, researchers also find that perks enhance operating performance, suggesting that perks can be motivators. In this study, we postulate that these views may not be contradictory. When market participants and media are critical of disclosed perks, the short term abnormal returns may be significantly negative after perk offering

announcements. However, scholars have shown that perks can enhance productivity efficiency and internal governance quality. From this perspective, we argue that perquisites enhance quality of governance and complement the incentive alignment between executives (agent) and shareholders (principal). No previous study highlights the relationship between perquisites and financial fraud. This study is the first to use financial fraud as an experiment to assess the incentive and governance roles of executive perquisites.

We hand-collected data regarding perquisites offered to firm executives prior to the fraud period, for both fraud firms and control firms. If, as Rajan and Wulf (2006), Marino and Z´abojn´ık (2008), and Vobmerbaurmer (2013) claim, the offering of perquisites provides complements to incentive schemes and enhances work efficiency, then the likelihood that CEOs (or executives) will commit financial fraud may be lower, since they have already been enjoying the precautionary benefits offered by their employer.

This study finds that the majority of financial fraud found in AAER reports involves financial restatements and/or the inflating of statements. This indicates that a positive relation may exist between equity based (such as options) compensation and the likelihood of financial fraud, which may occur are a result of managerial attempts to inflate financial performance and, more specifically, as a result of a manager's efforts to enhance his or her chance of exercising options. Nevertheless, if firms have the capacity to offer different forms of perquisites to their executives, the likelihood of committing fraud may be alleviated, since the executives have already realized an extra amount of compensation. Therefore, perquisites have a different impact than equity options on the likelihood of financial fraud. We thus hypothesize:

Hypothesis 1: There is a negative relationship between the reported perquisites in proxy statements and the likelihood of fraud.

Corporate Governance and Financial Fraud

Previous studies of the occurrence of fraud highlight executive compensation and corporate governance as the two major reasons why managers might commit fraud. In this paper we argue that these two crucial reasons are not mutually exclusive. Yermack (2006) and Andrews, Linn, and Yi (2009) believe that corporate governance is associated with the distribution of perquisites, while other scholars claim that corporate governance is related to fraud, lawsuits, or earnings management, as seen in Agrawal and Chadha (2005), Persons (2006), Basu, Hwang, Mitsudome, and Weintrop (2007), Harris (2008), Cornett, Marcus, and Tehranian (2008), and Cornett, McNutt, and Tehranian (2009). In a theoretical model constructed by Marino and Z´abojn´ık (2008), better corporate governance quality is positively related to the amount of perquisites offered. This is logical given the role of perks as an incentive scheme. If they have sufficient perks, firm executives may not put extra effort into extracting resources from the firm and their intention to commit the fraud would be lower. Managerial consumption of perquisites is not a form of compensation tied to the market performance of the shares, unlike stock options or access to restricted stocks. Thus, managers who are offered large amounts of stock options may have greater intention to inflate the firm's financial statement, while perks may not have that effect.

Agrawal and Chadha (2005) examine incidents of firms restating and corporate governance in the U.S. between 2000 and 2001. They find that a firm has a lower probability of earnings restatement when there is an independent director with financial expertise. Persons (2006) investigates several lawsuits involving "fraud" firms between 1992 and 2000, which were collected from events reported in The Wall Street Journal. She concludes that fraud firms have higher CEO turnover during the fraud period, and managers involved in fraudulent activities may prefer to reduce cash compensation. In addition, she also found that CEO changes occurred in fraud firms when the CEO was not the board chairman and the CEO had only been on the board for a short time. Basu, Hwang, Mitsudome, and Weintrop

(2007) find weak corporate governance associated with executive compensation in Japan. Cornett, Marcus, and Tehranian (2008) examine the cause of earnings management in S&P 100 firms in the U.S. between 1994 and 2003. They found that, after controlling for the magnitude of earnings management, corporate governance variables had become substantially more important than executive compensation. However, we argue some of the key variables for important governance factors in the association between executive perquisites and the likelihood of financial fraud have not been taken into account in previous research.

Bebchuk, Cremers, and Peyer (2011) proposed CEO pay slice (CPS) as an indicator of agency cost, finding that CEOs with higher pay than the top five executives in the firm have a higher opportunity to extract more rent from the firm. As a consequence, they may have a higher likelihood of association with financial fraud. Lewellyn and Muller-Kahile (2012) confirm that CEO power is positively linked to firms' risk-taking behavior. Liu and Jiraporn (2010) find that in order to escape from the monitoring of debt holders, firms pay higher at issue yield-spreads for newly issued bonds. Jiraporn, Chintrakarn, and Liu (2012) contend that firms with high CEO pay slice (CPS) attempt to maintain significantly low leverage level in order to escape from the supervision of debt holders. These findings all show that powerful CEOs are associated with more severe agency problems, in turn leading to value decreasing decisions and poorer outcomes. In this paper, we argue that CPS serves as an important internal governance proxy. Linked with the amount of compensation and corporate governance, this proxy has been neglected in the literature on financial fraud and compensation. Based on studies of the agency cost role of CPS, we hypothesize that:

Hypothesis 2: Firms with higher CPS have a higher likelihood of experiencing financial fraud.

Moreover, we also propose that firms that lack monitoring are more likely to experience financial fraud. Two important monitor proxies have been neglected in the literature on financial fraud and compensation: analysts following, and institutional investors.

Researchers have explored the monitoring role of analysts and institutional investors in many different corporate behaviors. Ayers and Freeman (2003) show that security prices reflect future earnings earlier for firms closely followed by analysts and firms with high institutional shareholding than for neglected firms. Yu (2008) shows that analyst coverage helps constrain earnings management, indicating that analysts serve as external monitors of managers. Sabri and Labégorre (2008) show that analysts are more likely to follow firms with pyramidal control structures and firms with a larger deviation between ownership and control. Their results support the contention that the minority shareholders of such firms consider the information service provided by analysts to be valuable since such shareholders face a higher likelihood of being expropriated. Dyck, Morse, and Zingales (2010) document that auditors and analysts, two agents of equity holders, jointly detected 24% (but not the majority) of the fraud cases in their study. Derrien and Kecskés (2013) use a sample of broker closures and broker mergers to show that a decrease in analyst coverage causes a decrease in a firm's investment and financing activities by 1.9% and 2.0% of total assets in comparison to similar firms that did not losing an analyst, indicating losing an analyst results in greater information asymmetry and higher capital costs.

However, Barua, Legoria, and Moffitt (2006) find that firms manage earnings to meet analyst forecasts, indicating having analysts following a firm may create incentives (or pressure) for firms to conduct earnings management to achieve the benchmark set by analysts. He and Tian (2013) show that analyst coverage hinders firm investment in long-term innovative projects, consistent with the hypothesis that managers are under too much pressure from analysts to meet short-term goals.

For institutional investors, using data of forced CEO turnover, Parrino, Sias, and Starks (2003) show that aggregated institution shareholding and the number of institutional investors declines in the year prior to the event, indicating that institutional investors vote with their feet if they are dissatisfied with the management. Hartzell and Starks (2003) find that institutional ownership is positively associated with the pay for performance sensitivity of a firm's executive compensation, supporting the monitoring role of institutional ownership in mitigating the agency problem between shareholders and managers. Elyasiani and Jia (2010) report a positive relationship between stable institutional ownership and firm performance, consistent with the hypothesis that stable institutional investors play an effective monitoring role. Burns, Kedia, and Lipson (2010) show that aggregate institutional ownership is positively linked to the likelihood and magnitude of corporate financial misreporting. However, Bushee (1998) shows that managers are under great pressure to reverse earnings declines by reducing R&D expenses when institutional investors with short investment horizons have a high level of ownership. Burns, Kedia, and Lipson (2010) find that the severity and the likelihood of financial misreporting increase with the aggregate institutional ownership. This effect is mainly attributed to ownership by institutions with short investment horizons (i.e. with little incentive to monitor), but it is offset by the concentration of holdings by these institutions (i.e. greater incentive to monitor).

Empirical literature on analyst coverage and institutional ownership suggests that they serve as proxies of monitoring power, but results are not conclusive. However, in extreme cases, corporate governance quality may become distorted. Too many analysts following and/or over-concentrated institutional ownership may put pressure on firm executives, inducing them to commit financial fraud. By the same token, if a firm has few analysts following it or low institutional ownership, monitoring would be poor, and the likelihood of financial fraud would rise. Therefore, we posit that the level of analysts following and

institutional ownership are both important proxies of monitoring power. In addition to the absolute number of analysts following and the level of institutional investors, we further define two dummy variables as the proxies of insufficient monitoring, including firms without analysts following (Dummy of no analysts following =1) and firms with low institutional ownership (Dummy of low institutional holding =1) to examine the effect of these conditions on the firms in our sample. Based on the discussions above, we hypothesize:

Hypothesis 3: Firms with low (no) analysts following and lower institutional ownership have a higher likelihood of committing financial fraud. However, too much coverage or concentrated institutional ownership may also induce the same problems.

DATA

The sample of the firms accused of accounting or auditing fraud was obtained from the SEC's AAER (Accounting and Auditing Enforcement Release) database. Following Erickson, Hanlon, and Maydew (2006), firms with alleged violations of SEC laws and accounting provisions were selected from AAER data. To be eligible for inclusion in the sample, firms must be publicly listed and data must be available from Compustat, the Center for Research in Securities Prices (CRSP), EDGAR-pro's proxy statements, and 10-K.

CEO/Executive perquisite data were hand collected from the firm's proxy statements between -3 and -1 years prior to the occurrence of fraud for both fraud firms and their matched firms. Other compensation variables, such as stock options, salary, and bonuses, were also collected from the firm's proxy statements. All the Accounting variables were downloaded from the Compustat database. Analyst information and institutional ownership data were downloaded from the I/B/E/S and 13F databases, respectively.

We also create a list of non-fraud firms as control firms which are matched by size and industry (2-digit SIC codes) in the year prior to the fraud. In total, 74 firm pairs are

successfully matched with the full data of top executive compensation, perks, and total assets in the matching year.

Table 1 Panel A shows a sample of 10 fraud firms and the reason they were accused of fraud by the SEC. These cases spread over different industries, with cases of fraud including overstating earnings, violation of GAAP, failed to have effective internal controls, and filing materially false financial statements. Panel B of Table 1 demonstrates the perk disclosure and types of perks granted to CEOs by the fraud firms and their matched firms. Only 4 out of 10 fraud firms have disclosed perks, while 7 out of 10 matched samples have disclosed perks, and all ten have issued financial perks. From Table 1, the negative correlation between issuing perks and financial fraud can be seen, to a certain degree confirming hypothesis 1.

Table 2 presents the distribution of the AAER fraud cases. Panel A shows that 44% were restatement cases and 21% issued false financial reports, Panel B lists the year of the fraud occurrence from 1996 to 2007, and Panel C presents the allocation of these events by industry (1-digit SIC code).

Insert Table 1 about here

Insert Table 2 about here

METHODOLOGY

Uinvariate Tests

We first conduct the univariate comparisons between the fraud firms and the matched firms on CEO/executive perks and compensation, corporate governance variables, and firm characteristics. T-tests and Z-tests are applied to examine the significant differences in means and medians, respectively.

The Logistic Model on the Likelihood of Fraud

Second, the following logistic regression is performed to examine the likelihood of fraud in relation to Perks, Executive compensation, Corporate Governance, and the controlled Accounting Variables. The model is constructed as follows by taking data -3 to -1 years prior to the year of the fraud, as indicated in the AAER report:

$$Fraud_{it} = \gamma_0 + \gamma_1 Perks_{it} + \gamma_2 Compensation_{it} + \gamma_3 CPS_{it} + \gamma_4 Monitoring\ by\ analysts\ \&\ institutional\ investors + \gamma_5 Control_{it} + \varepsilon \quad (1)$$

The following section describes the main variables we use in the model. Appendix A provides details on variable definitions and source of information.

Fraud:

If Fraud =1, the company has been accused of fraud; if Fraud=0, the company has not been accused of fraud.

CEO/Executive Perk Variables & Compensation Variables:

Following the concept of Andrews, Linn, and Yi (2009) and Grinstien, Weinbaum, and Yehuda (2011), CEO and executive perquisites are classified into five categories: (1) entertainment perks; (2) home and family perks; (3) service perks; (4) financial and severance perks; and (5) other perks, such as airplane, car and local transportation, medical and health benefits, and administrative privileges such as the use of a secretary or personal IT support, and communication expenses.

We then calculate the dollar amount of perks a firm grants to its CEO/ top 5 executives using the 4 main categories and the total amount of perks. The formulas for perk variables are as follows:

Total amount of perks

= Entertainment Perks + Home & family Perks + Service Perks+ Financial and Severance

Perks + Other Perks (2)

Entertainment Perks =Club Payments+ Vacation Expenses+ Other Personal Benefits;

Home and Family Perks = Personal/Home Security+ Housing Allowances+ Relocation;

Services Perks = Legal Fees+ Financial and Tax Planning Service+ Tax Reimbursements;

Financial and Severance Perks= Financial Perks+ Severance Perks;

We also calculate the total compensation, cash based compensation, and equality based compensation for CEOs and top 5 executives. We follow the definition of TDC1 in ExecuComp to calculate the total compensation. Cash based compensation is the aggregated dollar amount of salary and bonus. Equity based compensation is the aggregated dollar amount of stock awards and option awards. All relevant information was also obtained from Proxy Statements.

In addition, we create a measure for a firm's transparency of perk disclosure by identifying whether a firm discloses the value of the perks it grants to its CEO/top executives. A dummy of no perk disclosure is set to 1 if there is no disclosure of perks in a year; 0 otherwise. In the empirical analysis, we examine the effects of perk disclosure, total amount of perks, and the four main categories of perks given to the CEO and top five executives, respectively. In each model, we also include the cash based compensation and equity based compensations of the CEO and top five executives as explanatory variables.

Corporate Governance Variables:

The corporate governance practices we examine include internal and external forces. For the internal factor, we follow Bebchuk, Cremers, and Peyer (2011) and use CEO pay slice (CPS) as a proxy for CEO power, which indicates the agency problem of the firm. The external factors are the monitoring power represented by analysts and institutional investors.

Using hand collected total compensation information of CEOs and top five executives, we calculate CEO pay slice (CPS) as the share of CEO total compensation to the top five

executive total compensation. We calculate total compensation using the definition of TDC1 in ExecuComp.

This paper relies on information of analysts following and institutional ownership to measure the extent of monitoring power. Two dummy variables are used as proxies for a low level of monitoring. First, a dummy of no analysts following equals 1 if no analysts provide earnings forecast information in a year; 0 otherwise. In an unreported test, we also use analyst recommendation information to form this dummy variable, and the results are qualitatively the same. Second, a dummy of low level of institutional shareholding is set to 1 if there is no institutional shareholding reported in 13F; 0 otherwise. According to Thomson-Reuters, institutional managers with $100 million or more in Assets under management are required to file a 13F report. Hence, we assume a firm has a low level of institutional shareholding if it has no shareholding information in a 13F. Further, we calculate two additional variables to measure the outside monitoring forces: (1) the number of analysts following in a year and (2) the ratio of aggregate institutional shareholding to a firm's outstanding shares in the 4th quarter.

Accounting and Performance Variables:

The accounting variables for this study are: total assets, market capitalization, leverage, ROAs, annual stock returns (value-adjusted), and market to book ratio. Altman's Z score is also calculated to represent a firm's liquidity proxy.

The Proportional Hazard Survival Model on the Probability of Fraud

The proportional hazard survival model, introduced by Cox (1972), is also adopted in this study to enhance the robustness of the empirical results of the Logit regression. Cox's (1972) hazard model has several advantages. First, in a hazard model, the risk of bankruptcy changes over time, since the health of any firm is a function of both its age and its most recent

financial data. That said, the probability of bankruptcy assigned to a firm using a single-period model does not vary with time. The hazard model resolves this particular drawback associated with single-period models by explicitly accounting for time. Second, a hazard model incorporates time-varying covariates, or explanatory variables, that also change over time. Unlike single-period models, the hazard model can incorporate macroeconomic variables that are identical for all firms at a given point in time. Third, hazard models can also account for potential duration dependence, or the possibility that firm age might be an important explanatory variable. Accordingly, hazard models provide more efficient out-of-sample forecasts when the data are either updated or extended. Several researchers have adopted the linear probability and discrete-choice models, such as the Logit and Probit model (Meyer and Pifer, 1970). However, Ohlson (1980) and Tam and Kiang (1992) have proposed applying the neural-net approach to bank failure predictions.

Moreover, the hazard model can be regarded as a binary Logit model that integrates each firm year as a separate observation. A simple hazard model proposed by Shumway (2001) incorporates both accounting ratios and market-driven variables to produce out-of-sample forecasts that are more accurate than single-period models.

Survival Analysis

The time point of financial distress occurrence is defined as T, which is a discrete random variable T, where $T \in \{1,2,3,....,t\}$. The probability density of financial distress occurrence is defined as $f(t,x;\theta)$. Hence, the survival function of the firm is defined as:

$$S(t,x;\theta) = 1 - \sum_{j<t} f(j,x;\theta) = P(T \geq t \mid x;\theta) \quad , \tag{3}$$

which indicates the probability of no financial distress occurrences before time T.

In addition, the hazard function is defined as

$$\phi(t,x;\theta)=\frac{f(t,x;\theta)}{S(t,x;\theta)}=P(T=t\mid T\geq t,x;\theta) \tag{4}$$

to indicate the probability of financial distress occurrences at time T.

From the survival function and the hazard function the MLE estimation can be derived:

$$L=\prod_{i=1}^{n}\phi(t_i,x_i;\theta)^{Y_i}S(t_i,x;\theta) \tag{5}$$

where Y_i is a dummy Variable; Y_i=1 is used for distressed firms; Y_i=0 is used for non-distressed firms; and X is a time-varying dependent variable.

Shumway (2001) considered the discrete survival model as a multivariate Logit model:

$$L=\prod_{i=1}^{n}\left\{F(t_i,x_i;\theta)^{Y_i}\prod_{j<t_i}\left[1-F(j,x_i;\theta)\right]\right\} \tag{6}$$

where F(t,x; θ) has a upper limit equal to 1; it is not a decreasing cumulative distribution function but related to time. Therefore, Shumway used ϕ to replace F(t,x; θ), making MLE estimate of the discrete survival function become:

$$L=\prod_{i=1}^{n}\left\{\phi(t_i,x_i;\theta)^{Y_i}\prod_{j<t_i}\left[1-\phi(j,x_i;\theta)\right]\right\}$$

and $S(t,x;\theta)=\prod_{j<t_i}\left[1-\phi(j,x_i;\theta)\right]$. (7)

From (6) and (7) we can see that the discrete survival model is equivalent to the multivariate Logit model. However, Shumway neglected the survival probability of the sample firms at time t_i. This paper further modifies the Logit model such that the MLE estimate of the survival model becomes:

$$L=\prod_{i=1}^{n}\left\{\phi(t_i,x_{it};\theta)^{Y_i}\left[1-\phi(t_i,x_{it};\theta\right]^{1-Y_i}\prod_{j<t_i}\left[1-\phi(j,x_{it};\theta)\right]\right\} \quad . \tag{8}$$

(8) takes into consideration the probability of financial distress occurrence at $t<t_i及t=t_i$ for the sample firms. The hazard function $\phi(t,x;\theta)$ under the discrete survival model is a Logit model:

$$\phi(t,x;\theta)=\frac{e^{(\alpha+\beta' x)}}{1+e^{(\alpha+\beta' x)}} \quad ; \quad \theta=(\alpha,\beta)$$

This can be considered to be an accelerated failure-time model (Lancaster 1990).

EMPIRICAL RESULTS AND ANALYSIS

Results of Uinvariate Tests

Table 3 Panel A presents the univariate comparisons of CEO compensation and perks, corporate governance variables, and firm characteristics between the fraud group and the matched firms. T-tests and Z-tests are applied to examine the significant differences in means and medians, respectively. We can see that the fraud firms have a significantly lower amount of CEO total perks (36.41 thousand for fraud firms and 82.44 thousand for the matched firms) than matched firms. Further, CEOs in the matched firms received higher financial and severance perks (8.32 thousands for the fraud firms and 56.08 thousands for the matched firms). In fact, the amount of financial perquisites is around 23% of the total amount of perquisites (8.32/36.41) for fraud firms, but in the matched firms, the total amount of perquisites has a much higher proportion of financial perquisites (56.08/82.44=68%). In addition, the top five executives in the matched firms also received a higher amount of perquisites (237.5 thousands for the matched firms and 128.59 thousands for the fraud firms). Interestingly, both the CEO and the top five executives received a higher amount of the equity

based compensation in the fraud firms than the matched firms (0.58 million for fraud firms' CEOs and 0.32 million for the matched firms' CEOs; 1.26 million for the fraud firms' executives and 0.79 million for the matched firms' executives). This preliminary result confirms our first hypothesis that ***there is a negative relationship between the reported perquisites in proxy statements and the likelihood of fraud.*** The fact that firms offer a higher amount of perquisites may imply an effective incentive scheme, which hence should limit the desire to commit financial fraud. Conversely, there is a higher likelihood of financial fraud in the firms that offer a higher amount of equity based (restricted stocks and options) compensation, which is consistent with previous studies.

The univariate analysis further demonstrates that CEOs in the fraud firms obtained a higher CEO Pay Slice (CPS) in comparison to the matched firm CEOs (37% to 33%), indicating that CEOs in fraud firms were given more power than CEOs in the matched firms. There are also more fraud firms that did not have an analyst following them than matched firms (44% to 36%). In addition, a significantly higher percentage of fraud firms had a lower level of institutional holding than matched firms (33% compared to 25%). The results of the corporate governance variables show that fraud firms experience severe agency problems, as assessed by the CPS introduced by Bebchuk, Cremers, and Peyer (2011). Furthermore, firms with weaker external monitoring (measured by dummies of no analysts following and low level of institutional ownership) are also positively linked to fraud. These findings confirm our second hypothesis that ***Firms with higher CPS have a higher likelihood of committing financial fraud.***

Furthermore, the results of dummies of no analysts following and low institutional ownership both show that the probability that fraud firms either have no analysts following or low institutional ownership is significantly higher than that of matched firms (0.44 to 0. 36 for the dummy of no analysts following; 0.33 to 0.25 for the dummy of low institutional ownership). This finding confirms our hypothesis 3, that ***Firms with lower (no) analysts***

following and institutional ownership have a higher likelihood of committing financial fraud.

Panel B of Table 3 reports the results of the univariate analysis for the 56 AAER reports, which specify the person who committed the fraud. Although the guilty party has been named in 56 of the fraud cases in our sample, the person who committed the fraud is not necessarily the CEO or one of the top five executives. This not only demonstrates that the fraud may not have been committed by a specific person, but also, to some extent, it represents a high likelihood of agency problems. Overall, the results are consistent with Panel A of Table 3, which shows that CEOs and executives in matched firms received a higher amount of perquisites (total amount of perks and financial and severance perks), while CEOs and executives in fraud firms received a higher amount of equity based compensation. Moreover, the CPS is higher for fraud firms.

Insert Table 3 about here

Results of Logit and Survival Models

Examining CEO Perquisites

Panel A of Table 4 presents results from the Logit model for the likelihood of fraud associated with CEO perquisites, compensation, and corporate governance. The dummy of no perk disclosure is positively linked with fraud (0.47), indicating that firms that are less transparent in perquisite disclosure exhibit a certain degree of agency problem and are more likely to experience fraud. Both the total amount of perquisites and the amount of financial perks are significantly and negatively related to the likelihood of fraud (-0.04 and -0.10), which not only confirms the fact that fraud firms could not afford to offer too many perquisites to their CEOs, but also validates hypothesis 1. Furthermore, the coefficient of CPS is significantly and positively associated with the likelihood of financial fraud (1.91, 2.16,

2.28, 2.04), which shows that CEOs in fraud firms are able to extract more rent than those in matched firms. This also verifies our argument that firms with weaker corporate governance are more likely to be linked to frauds. Finally, variables representing a low level of monitoring (i.e., the dummies of no analysts following and low institutional ownership) are both positively associated with the likelihood of frauds (i.e. 0.86 and 0.88 for model 1.), which also validates our hypothesis that firms with weaker external monitoring have a higher likelihood of financial fraud, once again confirming hypothesis 2.

Panel B of Table 4 shows the results of the Survival model for CEO perquisites and frauds. There is a negative association between CEO total perks/CEO financial and severance perks and the likelihood of a fraud (-0.03, -0.06 respectively). Interestingly, for those firms that have analysts following, the greater the amount of analysts following, the higher the probability of committing financial fraud. This result confirms hypothesis 3.

Insert Table 4 about here

Table 5 presents results of Logit and Survival model by classifying CEO perquisites items into No Disclosure/offering Dummy (=1) for Dummies of No CEO total perks, entertainment perks, home and family perks, service perks, and financial and severance perks, instead of applying the log of the perquisite amount as in previous tables. Results show that dummies of No CEO total perks and No CEO financial and severance perks are positively linked with the likelihood of firm experiencing fraud (0.50 and 0.70 for model (3)). Nevertheless, there is a positive relation between the offering of service perks and fraud. This finding is consistent with Table 4 and hypothesis 1. The Service perks variable is defined as the sum of legal fees, tax services, and tax reimbursement to firm CEO. The payment of service perks may imply that the firm's CEO may engage in lawsuits, or is offered a large salary (resulting in large tax payments) This resembles an ex-post disbursement for the CEO's

legal cases and regulation compensation, rather than an ex-ante feature of an incentive scheme. Therefore, there is no contradiction in a CEO paying high legal fees or having to make large tax payments and a positive link with the likelihood of financial fraud. Panel B of Table 5 shows the dummy of no total perks (0.33, 0.20) is positive and significant, while the no financial perks dummy is also positive and significant (0.57, 0.49), which again supports the argument that perquisites are a positive incentive tool.

Insert Table 5 about here

Examining Top 5 Executive Perquisites

Panels A and B of Table 6 present the results of the Logit and Survival models between the top 5 executive perquisites and financial fraud, respectively. The results of the Logit model in Panel A again confirm that there is a positive relation between no perk disclosure and the likelihood of financial fraud (0.51). Furthermore, there is a negative relation between executive total perks and the likelihood of committing fraud (-0.04). Our empirical findings also show that there is positive relation between executive equity based compensation and the likelihood of financial fraud (0.05). Finally, CPS is also positively related to the likelihood of financial fraud (1.71, 1.73, 1.82, 1.76). We also find that there is a positive association between the dummy of no institutional ownership/dummy of no analysts following, and the likelihood of financial fraud (0.87 and 0.80 for Model (1)). Again, these results confirm hypothesis 3.

Second, the relationship between institutional shareholding and the likelihood of financial fraud is positive. We contend that the reason is as stated in hypothesis 3, that *Firms with lower (no) analysts following and institutional ownership have a higher likelihood of committing financial fraud. However, too much coverage or concentrated institutional ownership may also induce the same problems.*

In general, the results of the association between CEO/Executive perks and the

likelihood of financial fraud in Tables 4-6 confirm our hypotheses 1 throughout 3. However, the association between CEO perquisites and the likelihood of fraud is more pronounced. This is plausible since firm CEOs are generally believed to have higher decision making power than other executives.

Insert Table 6 about here

CEO Perquisites vs. Top 5 Executive Perquisites

In Table 7 we put both CEO and executive perquisites into the same regressions and a significant and negative relation between CEO financial and severance perks and frauds (-0.10, -0.07) was still observed. Furthermore, a positive relationship was discovered between CPS and institutional holding, while the dummies of no analysts following and low institutional holding remained significantly positive (2.72, 1.43, 0.95, and 0.81), indicating that our previous empirical findings are robust.

Insert Table 7 about here

The 56 firms with disclosure of fraud executive name and their matching firms

In Panels A and B of Table 8, we further conduct a robustness test by only including those frauds we are able to identify, such as a person's name in the AAER report, even though the person named may not necessarily be the CEO or one of the top five executives. Again, we find that, in addition to our previous findings, there is a positive relation between CEO services perks and the likelihood of financial fraud (0.12, 0.27) in the Logit model. Our definition of Services Perks here is the sum of legal, financial, and tax services fees and tax reimbursement. We infer that this positive relationship may be due to the amount that a firm pays for the legal fees of firm executives who exhibit a positive sign of no perks disclosed and

a negative sign of more financial perks being linked with the likelihood of committing to fraud (0.71 and -0.16 for model 1), which confirms hypothesis 1. The positive sign of the dummy of low institutional investor ownership again confirms hypothesis 3. Furthermore, results of the Panel B in Table 8 again confirm the negative sign of CEO financial perks.

Insert Table 8 about here

Methodological issue 1: collinearity between corporate governance and perk variables

There is a concern that corporate governance and perks may be related. We conduct the following two-stage regressions to address this concern. The first stage runs a regression of corporate governance variables on perks, treating the residual perks as unrelated to corporate governance variables. The second stage then incorporates the residual perks into the original model to see whether the results of perks remain.

First stage regression:

$$\begin{aligned} Perks_{it} = {} & \beta_0 + \beta_1 CPS_{it} + \beta_2 Dummy\ of\ no\ analyst\ following_{it} \\ & + \beta_3 Dummy\ of\ low\ institutional\ ownership_{it} + \beta_4 Number\ of\ analyst\ following_{it} \\ & + \beta_5 Ratio\ of\ Institutioal\ shareholding_{it} + \varepsilon \end{aligned} \tag{9}$$

Second stage regression:

$$\begin{aligned} Fraud_{it} = {} & \gamma_0 + \gamma_1 \text{Re}sidual\ perks_{it} + \gamma_2 Compensation_{it} + \gamma_3 CPS_{it} \\ & + \gamma_4 Monitoring\ by\ analysts\ \&\ institutional\ investors + \gamma_5 Control_{it} + \varepsilon \end{aligned} \tag{10}$$

To further enhance the robustness of the empirical analysis, in Panel A of Table 9 we first attempt to extract the residual of CEO perks regressed on key components of governance variables, to avoid the collinearity between corporate governance and perk variables. Residuals from Panel A regressions are then put into the Logistic model in Panel B. The results of Panel B are consistent with the above findings, again showing a negative relation

between total perks/CEO financial and severance perks and fraud likelihood (-0.04 and -0.09). The empirical findings of the Survival Model in stage two also exhibit the same results (Residual Log CEO total perks=-0.03, Residual Log CEO financial & severance perks=-0.06). This finding is consistent with hypothesis 1. Further, the empirical results for the CPS are again positive, which is consistent with hypothesis 2. Finally, the positive signs of the dummy of no analysts and the dummy of low institutional ownership confirms hypothesis 3.

Insert Table 9 about here

Methodological issue 2: possible endogeneity issue

It is also possible that perks and the likelihood of firms committing financial fraud could be simultaneously determined. Hence, we conduct another two-stage regression to address this issue. The first stage runs a regression on determinants of perks to obtain the predicted value of perks. The second stage then incorporates the predicted perks into the original model to see whether the results of perks remain.

First stage regression:

$$Perks_{it} = \beta_0 + \beta_1 Performance\ \&\ accounting\ variables_{it} + \beta_2 CPS_{it} + \beta_3 Monitoring\ by\ analysts\ \&\ institutional\ investors_{it} + \varepsilon \quad (11)$$

Second stage regression:

$$Fraud_{it} = \gamma_0 + \gamma_1 Predicted\ Perks_{it} + \gamma_2 Compensation_{it} + \gamma_3 CPS_{it} + \gamma_4 Monitoring\ by\ analysts\ \&\ institutional\ investors + \gamma_5 Control_{it} + \varepsilon \quad (12)$$

In Table 10, a two stage regression is conducted by first estimating the determinants of perquisite amounts. In the second stage, the predicted amount of perquisites is embedded into the Logit and the Survival regression to examine the association between the likelihood of fraud and the predicted amount of perks. Again, negative signs are obtained for predicted

amount of total perks and financial perks (-0.35 and -0.84), which confirms hypothesis 1. Further, positive signs for CPS are again generated for all models, which is consistent with hypothesis 2. Finally, the dummy of no analysts following and higher amount of institutional ownership are associated with the likelihood of fraud, which to a certain extent, is consistent with our hypothesis 3. Results in Panel C of Table 10 also exhibited similar findings.

Insert Table 10 about here

CONCLUSION

This paper investigates whether executive perquisites and several important agency cost and monitoring power indicators are crucial factors in explaining the likelihood financial fraud occurring at a firm. The literature on the role and impact of these benefits are inconclusive, as some scholars argue that perquisites represent executives attempting to consume firm resources for personal benefits, while others contend that perks optimize compensation design. By analyzing the American Accounting and Enforcement Report issued by the SEC, where firms are accused of committing financial fraud, we investigate the role of perquisites and their association with the likelihood of financial fraud.

We show that a firm is more likely to experience fraud if it offers a smaller amount of perks to CEOs/top executives than matched firms. This effect is especially strong in the case of financial and severance perks. Our finding helps alleviate concerns from relevant stakeholders such as policy makers and market participants that CEO/executive perquisites may be harmful to firm value. In fact perquisites serve as a complement to firm executives and hence have a positive impact on compensation contracts. This finding echoes previous research on the incentive role of perks by Fama (1980), Rajan and Wulf (2006) and Marino and Z´abojn´ık (2008). Our empirical results also demonstrate a different outcome than previous research on the linkage between equity incentive schemes and the likelihood of

financial fraud. We infer that this is due to the differing nature of stock options and perks. Though market participants and scholars are aware that excess equity compensation may induce higher likelihood of financial fraud such as inflated earnings or earnings restatements, perquisites appear to be more than purely agency costs. Instead, they appear to have a positive incentive effect. With the increasing disclosure transparency in perquisite reporting, we believe our study helps to advance understanding of the function of this particular form of executive compensation for policy makers, scholars, and investors.

Furthermore, our results also contribute to the understanding of the some crucial governance and monitoring factors in association with the likelihood of fraud. The internal governance quality is assessed by a measure of CEO power- CEO pay slice (CPS). According to our empirical results, the likelihood of financial fraud is higher when a firm exhibits a higher potential agency cost (CPS). Furthermore, firms with no analysts following and low institutional ownership also have a higher likelihood of committing financial fraud. Overall, our results suggest that granting financial and severance perks to CEOs (and top executives), giving lower power to CEOs, and maintaining adequate level of monitoring power might help to alleviate problems of financial fraud.

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Appendix A. Variable definitions and data sources

Variables	Definition and source of information
CEO and Top 5 Executive Perks	
Dummy of no perk disclosure	We manually check a firm's proxy statement to see whether firms report perks. This variable is set to 1 if a firm does not report or grant perks; 0 otherwise. Data source: Proxy Statements from SEC website.
CEO total perks / Top5EXE total perks ($000s)	The aggregated dollar amount of the following 5 types of perks a firm grants to its CEO/top 5 executives: (1) entertainment perks, (2) home & family perks, (3) service perks, (4) financial & severance perks, (5) other perks, such as airplane, car & local transportation, medical & health benefits, and administrative privileges such as the use of secretary or personal IT support, or communication expenses. Data source: Hand-collected from proxy statements.
CEO entertainment perks/ Top5EXE entertainment perks($000s)	The aggregated dollar amount of perks a firm grants to its CEO/top 5 executives for entertainment expenses and personal benefits, including club payments, vacation expenses, and other personal benefits. Data source: Hand-collected from proxy statement.
CEO home & family perks / Top5EXE home & family perks ($000s)	The aggregated dollar amount of perks related to home & family a firm grants to its CEO/top 5 executives, such as personal and home security, housing allowance, and moving and relocation expenses. Data source: Hand-collected from proxy statements.
CEO service perks/ Top5EXE service perks ($000s)	The aggregated dollar amount of perks a firm offers as payments for its CEO/top 5 executives on legal fees, services on financial & tax planning, and tax reimbursements. Data source: Hand-collected from proxy statements.
CEO financial & severance perks / Top5EXE financial & severance perks ($000s)	The aggregated dollar amount of financial & severance perks a firm offers as payments for its CEO/top 5 executives. Financial perks include personal loans & interest payments, donation and gifts to a charity /other entities, or a discretionary cash allowance for an executive. Severance perks include any payment the firm promises to pay an executive when the employment relationship terminates. Data source: Hand-collected from proxy statements.
CEO & Top 5 Executive Compensation	
CEO total compensation (TDC1) /Top5EXE total compensation (TDC1) ($mil)	We follow the definition of TDC1 in ExecuComp to calculate this variable. TDC1 includes salary, bonus, stock awards, option awards, long-term incentive plans, and other annual compensation such as perquisites and other personal benefits (including termination or change-in-control payments, 401K plans, etc). Data source: Hand-collected from proxy statements.
CEO cash based compensation / Top5EXE cash based compensation ($mil)	The aggregated dollar amount of salary and bonus a firm grants its CEO/top 5 executives. Data source: Hand-collected from proxy statements.

Variables	Definition and source of information
CEO equity based compensation / Top5EXE equity based compensation ($mil)	The aggregated dollar amount of stock awards and option awards a firm grants its CEO/ top 5 executives. Data source: Hand-collected from proxy statements.
Corporate Governance	
CEO pay slice (CPS)	Following Bebchuk, Cremers, and Peyer (2011), CPS is the fraction of the total compensation (TDC1) to the group of top five executives that goes to a CEO. Data source: Hand-collected from proxy statements.
Dummy of no analysts following	This variable is set to 1 if no analysts provide earnings forecast information in a year; 0 otherwise. Data source: IBES.
Dummy of low institutional ownership	This variable is set to 1 if there is no institutional shareholding reported in 13F; 0 otherwise. According to the Thomson-Reuters, institutional managers with $100 million or more in Assets under management are required to file a 13F report. Hence, we assume a firm has low level of institutional shareholding if it has no shareholding information in its 13F. Data source: 13F.
Number of analysts following	The number of analysts providing earnings forecasts for a firm in a year. Data source: IBES.
Institutional share holding at Q4	The ratio of aggregate institutional shareholding to a firm's outstanding shares in the 4th quarter. Data source: 13F.
Performance & Accounting Information	
Z_SCORE	The Altman's (1968) Z score = 0.012*Working Capital/Total Assets + 0.014* Retained Earnings/Total Assets + 0.033*Earnings Before Interest and Taxes/Total Assets + 0.006*Market Value of Equity/Book Value of Total Liabilities + 0.999*Sales/Total Assets. Data source: Compustat.
ROA	Return on Assets = Net Income/Total Assets. Data source: Compustat.
Tobin's q	Tobin's Q = (Total Assets - Stockholder's Equity + Common Shares Outstanding*Price)/Total Assets. Data source: Compustat.
One-year stock returns - value adj.	We use monthly stock return data to calculate the value-weighted one-year stock return. Data source: CRSP.
Total assets ($ bn)	Total assets of a firm, obtained from Compustat.
Market value of equity ($ bn)	Use the following formula: Common Shares Outstanding * Price. Data source: Compustat.
Market to book value	Use the following formula: (Common Shares Outstanding * Price)/Total Common Equity. Data source: Compustat.

Table 1 Examples of Fraud Firms and Perks Granted to CEOs

Panel A presents 10 firms which were found guilty of financial fraud. For each firm, we report the fraud year, and the description of the fraud, obtained from the SEC's Accounting and Auditing Enforcement Release (AAER) reports. Panel B shows type of perks granted to CEOs for these 10 fraud firms and their matching firms in the year prior to the fraud, collected from the proxy statements. Following Andrews, Linn, and Yi (2009) and Grinstein, Weinbaum, and Yehuda (2011), we identify whether firms disclose perks and also group perks into 4 main types, including entertainment perks, home and family perks, services perks, and financial and severance perks.

Panel A. Fraud firm examples

Company Name	SIC Code	Fraud Year	Fraud Description from SEC AAER
AEROSONIC CORP	3812	1999-2002	Create fraudulent inventory entries and improper revenue recognition, in violation of GAAP
ANICOM INC	5063	1998-2000	Improper earnings management techniques that inflated Anicom's revenues
ASHLAND INC	5160	1999-2001	Ashland materially understated its environmental reserve and overstated its net income in annual and quarterly reports filed from 1999 to 2001.
CARDINAL HEALTH INC	5122	2000-2004	Fraudulent earnings and revenue management scheme to inflate Cardinal's publicly reported operating revenue, earnings and growth trends
CON-WAY INC	4210	2000-2003	Involves Con-way's violations of the books and records, and internal control provisions of the Foreign Corrupt Practices Act (FCPA)
DYNEGY INC	1311	2001	Engaged in securities fraud in connection with its disclosures and accounting for Alpha
HBO & CO	7373	1997-1998	Recognize revenue on transactions that failed to comply with GAAP
INTEGRATED ELECTRICAL SVCS	1731	2003-2004	Failed to properly disclose material loss contingencies related to its accounts receivable
MCAFEE INC	7372	1998-2000	Financial fraud/overstated its revenues and earnings
NETOPIA INC	3576	2002-2004	Engaged in actions that resulted in Netopia filing materially false financial statements

Table 1 (Continued)

Panel B. Perk disclosure and the type of perks granted to CEOs: fraud firms vs. matching firms

Year	Fraud Firm	Disclose Perks	Entertain Perk	Home & Family Perk	Service Perk	Financial & Severance Perk	Matching Firm	Disclose Perks	Entertain Perk	Home & Family Perk	Service Perk	Financial & Severance Perk
1998	AEROSONIC CORP						INTEG INC					
1997	ANICOM INC	Y	Y				NOLAND CO	Y				Y
1998	ASHLAND INC	Y			Y		MCKESSON CORP	Y		Y		Y
1999	CARDINAL HEALTH INC						MCKESSON CORP	Y				Y
1999	CON-WAY INC	Y				Y	ONEOK INC					
2000	DYNEGY INC						OCCIDENTAL PETROLEUM CORP	Y	Y		Y	Y
1996	HBO & CO	Y				Y	WANG LABS INC	Y				Y
2002	INTEGRATED ELECTRICAL SVCS						CHICAGO BRIDGE & IRON CO	Y				Y
1997	MCAFEE INC						EDWARDS J D & CO					
2001	NETOPIA INC						ADVANCED SWITCHING COMM INC	Y				Y

Table 2 Descriptive statistics of sample firms by fraud type, year, and industry

This table presents the distribution of the 74 AAER fraud cases which are matched with non-fraud firms by size and industry (by 2-digit SIC codes). The fraud cases were obtained from the SEC's AAER database during the periods from 1996 to 2007. Panels A to C report the distribution of fraud type, year, and industry, respectively.

Panel A. Fraud type classification

Fraud type	Number of firms	Percent of Total
Fraudulent transactions, securities fraud reporting	8	10.8%
Books and records violations	9	12.2%
Stock option value estimation	3	4.1%
Issue false & misleading financial statements	16	21.6%
Restate revenue, income, expense, ...accounting items	33	44.6%
Accounting principle irregularity	5	6.8%
All	74	100.0%

Panel B. Year distribution of fraud cases

Fraud beginning year	Number of firms	Percent of Total
1996	2	2.70%
1997	5	6.76%
1998	6	8.11%
1999	10	13.51%
2000	16	21.62%
2001	11	14.86%
2002	7	9.46%
2003	9	12.16%
2004	5	6.76%
2006	2	2.70%
2007	1	1.35%

Panel C. Industry distribution of fraud cases (by 1-digit SIC code)

Industry description (1-digit SIC code)	Number of firms	Percent of Total
Agriculture, Forestry, Fishing (0)	1	1.35%
Mining, oil and gas, construction (1)	4	5.41%
Non-durables manufacturing (2)	7	9.46%
Durables manufacturing (3)	17	22.97%
Transport and communication (4)	5	6.76%
Wholesale and retail trade (5)	12	16.22%
Financial services (6)	10	13.51%
Services (7)	16	21.62%
Health services (8)	2	2.70%

Table 3 Univariate tests of fraud vs. matching firms

This table reports univariate comparisons between the fraud group and the matched firms on CEO/executive perks and compensation, corporate governance variables, and firm characteristics during the 3 years before the fraud occurrence. Panel A reports the results of the 74 pairs. Panel B reports the results for 56 AAER reports, which specify the person who committed the fraud. Dummy of no perk disclosure is set to 1 if there is no disclosure of perks in a year; 0 otherwise. CEO pay slice (CPS) is the share of CEO total compensation to the total compensation of the top five executives. Significant differences between fraud and matching firms are indicated along means (using t-tests) and medians (using Wilcoxon tests) of matching firms. See Appendix A for details of variable definitions and data sources. *, **, *** Significant at the 10, 5, and 1 percent levels, respectively, for a two-tailed test.

Panel A. 74 Pairs: whole sample

	Fraud Firms (n=191)		Matching Firms (n=202)	
	Mean	**Median**	**Mean**	**Median**
CEO & Top 5 Executive Perks				
Dummy of no perk disclosure	0.43	0.00	0.36	0.00
CEO total amount of perks ($000s)	36.41	0.00	82.44 *	0.43
CEO entertainment perks ($000s)	0.82	0.00	5.88	0.00
CEO home and family perks ($000s)	11.33	0.00	3.19	0.00
CEO services perks ($000s)	6.40	0.00	9.65	0.00
CEO financial and severance perks($000s)	8.32	0.00	56.08 *	0.00 **
Top5EXE total amount of perks ($000s)	128.59	11.06	237.50 **	15.12
Top5EXE entertainment perks ($000s)	2.62	0.00	9.19	0.00
Top5EXE home and family perks ($000s)	37.02	0.00	22.76	0.00
Top5EXE services perks ($000s)	12.45	0.00	14.57	0.00
Top5EXE financial and severance perks($000s)	51.08	0.00	168.01 **	0.00 **
CEO & Top 5 Executive Compensation				
CEO total compensation (TDC1) ($mil)	1.83	0.97	1.59	0.76
CEO cash based compensation ($mil)	1.06	0.66	0.93	0.54
CEO equity based compensation ($mil)	0.58	0.13	0.32	0.05 ***
Top5EXE total compensation (TDC1) ($mil)	4.80	2.82	4.67	2.52
Top5EXE cash based compensation ($mil)	3.00	1.97	2.97	1.81
Top5EXE equity based compensation ($mil)	1.26	0.35	0.79 *	0.18 ***
Corporate Governance: CPS, Institutional Holding, Analysts Following				
CEO pay slice (CPS)	0.37	0.37	0.33 ***	0.34 **
Dummy of no analysts following	0.44	0.00	0.36 *	0.00 *
Dummy of low institutional ownership	0.33	0.00	0.25 *	0.00 *
Number of analysts following	7.27	3.00	6.95	3.00
Institutional share holding at Q4	0.35	0.32	0.31	0.28
Performance & Accounting Information				
ROA	-0.02	0.03	-0.12 **	0.03
Tobin's q	2.74	1.41	2.77	1.40
Z SCORE	1.24	0.95	1.24	0.95
One-year stock returns - value adj.	0.26	0.02	0.10	-0.03
Total assets ($ bn)	4.64	0.59	4.48	0.65
Market value of equity ($ bn)	3.13	0.61	5.93 **	0.55
Market to book value	0.90	2.33	4.68 *	2.05

Table 3 (Continued)

Panel B. 56 Pairs: fraud firms with fraud executive names

	Fraud Firms (n=145)		Matching Firms (n=155)	
	Mean	**Median**	**Mean**	**Median**
CEO & Top 5 Executive Perks				
Dummy of no perk disclosure	0.41	0.00	0.32	0.00
CEO total amount of perks ($000s)	41.47	0.00	102.26 *	3.35 *
CEO entertainment perks ($000s)	1.08	0.00	7.38	0.00
CEO home and family perks ($000s)	14.52	0.00	3.78	0.00
CEO services perks ($000s)	8.42	0.00	12.57	0.00
CEO financial and severance perks($000s)	6.55	0.00	69.28 *	0.00 ***
Top5EXE total amount of perks ($000s)	152.08	14.00	262.58 *	26.48
Top5EXE entertainment perks ($000s)	3.45	0.00	9.97	0.00
Top5EXE home and family perks ($000s)	43.62	0.00	27.27	0.00
Top5EXE services perks ($000s)	15.76	0.00	18.99	0.00
Top5EXE financial and severance perks($000s)	60.08	0.00	182.15 **	0.00 ***
CEO & Top 5 Executive Compensation				
CEO total compensation (TDC1) ($mil)	1.76	0.90	1.52	0.71
CEO cash based compensation ($mil)	1.07	0.60	0.91	0.50
CEO equity based compensation ($mil)	0.46	0.11	0.22 ***	0.05 ***
Top5EXE total compensation (TDC1) ($mil)	4.87	2.98	4.58	2.32
Top5EXE cash based compensation ($mil)	3.04	1.75	2.89	1.69
Top5EXE equity based compensation ($mil)	1.17	0.30	0.70 **	0.18 **
Corporate Governance: CPS, Institutional Holding, Analyst Following				
CEO pay slice (CPS)	0.35	0.36	0.33 *	0.33
Dummy of no analysts following	0.47	0.00	0.39	0.00
Dummy of low institutional ownership	0.37	0.00	0.28	0.00
Number of analysts following	6.92	2.00	6.77	3.00
Institutional share holding at Q4	0.33	0.29	0.30	0.23
Performance & Accounting Information				
ROA	-0.02	0.02	-0.15 **	0.02
Tobin's q	2.80	1.42	2.91	1.39
Z SCORE	1.28	0.95	1.10	0.87
One-year stock returns - value adj.	0.22	0.01	0.07	-0.05
Total assets ($ bn)	5.17	0.69	4.83	0.65
Market value of equity ($ bn)	2.90	0.60	4.25	0.53
Market to book value	-0.08	2.41	4.36	2.08

Table 4 Likelihood of fraud events: CEO perks, compensation, and corporate governance

This table presents results regarding the likelihood of fraud associated with CEO perquisites, compensation, corporate governance variables, and the controlled accounting variables. Panels A and B report the results of Logistic Model and Survival Model, respectively. In both Panels, (1) examines a firm's transparency of perk disclosure;(2) examines CEO total amount of perks; (3) further examines the four main categories of CEO perks; (4) includes both the dummy of no perk disclosure and the four main categories of CEO perks. The dummy of no perk disclosure is set to 1 if there is no disclosure of perks in a year; 0 otherwise. CEO pay slice (CPS) is the share of CEO total compensation to the total compensation of the top five executives. See Appendix A for details of variable definitions and data sources. *,**, *** Significant at the 10, 5, and 1 percent levels, respectively, for a two-tailed test.

Panel A. Logistic Model

	(1)		(2)		(3)		(4)	
	Coef.	Chi-Square	Coef.	Chi-Square	Coef.	Chi-Square	Coef.	Chi-Square
Dummy of no perk disclosure	0.47	3.53 *					0.43	2.28
Log CEO total amount of perks			-0.04	3.02 *				
Log CEO entertainment perks					0.03	0.21	0.04	0.46
Log CEO home and family perks					-0.01	0.07	0.00	0.00
Log CEO services perks					0.07	2.32	0.08	3.29 *
Log CEO financial and severance perks					-0.10	7.67 ***	-0.08	5.12 **
CEO cash based compensation	-0.11	1.38	-0.09	0.91	-0.11	1.35	-0.12	1.63
CEO equity based compensation	0.02	0.60	0.02	0.39	0.02	0.63	0.02	0.93
CEO Pay Slice (CPS)	1.91	2.86 *	2.16	3.68 *	2.28	3.89 **	2.04	3.03 *
Dummy of no analysts following	0.86	3.26 *	0.91	3.65 *	0.95	3.82 *	0.90	3.41 *
Dummy of low institutional ownership	0.88	3.76 *	0.83	3.33 *	0.79	2.88 *	0.86	3.35 *
Number of analysts following	0.03	2.66	0.03	2.81 *	0.03	3.29 *	0.03	3.08 *
Institutional share holding at Q4	1.40	4.81 **	1.40	4.87 **	1.45	5.17 **	1.45	5.05 **
Z Score	-0.09	0.50	-0.09	0.49	-0.08	0.37	-0.09	0.41
Return on assets	1.59	9.14 ***	1.55	8.81 ***	1.53	8.66 ***	1.54	8.53 ***
Tobin's q	0.01	0.19	0.00	0.04	0.00	0.04	0.01	0.09
Log total assets	-0.15	3.20 *	-0.15	3.18 *	-0.17	4.12 **	-0.16	3.50 *
Market to book value	-0.02	1.70	-0.02	1.76	-0.02	1.53	-0.02	1.48
Intercept	0.29	0.06	0.36	0.09	0.50	0.18	0.41	0.12
Number of observations used	321		321		321		321	
Pseudo R^2	0.09		0.09		0.10		0.11	

Table 4 (Continued)

Panel B. Survival Model

	(1)		(2)		(3)		(4)	
	Coef.	**Chi-Square**	**Coef.**	**Chi-Square**	**Coef.**	**Chi-Square**	**Coef.**	**Chi-Square**
Dummy of no perk disclosure	0.25	2.31					0.16	0.73
Log CEO total amount of perks			-0.03	2.94 *				
Log CEO entertainment perks					0.02	0.21	0.03	0.38
Log CEO home and family perks					-0.03	0.53	-0.02	0.26
Log CEO services perks					0.02	0.66	0.03	1.04
Log CEO financial and severance perks					-0.06	5.74 **	-0.06	4.35 **
CEO cash based compensation	-0.07	1.12	-0.05	0.73	-0.06	1.06	-0.07	1.20
CEO equity based compensation	0.02	0.93	0.01	0.72	0.02	0.91	0.02	1.14
CEO pay slice (CPS)	0.76	1.09	0.88	1.47	1.05	2.02	0.97	1.70
Dummy of no analysts following	0.48	2.08	0.49	2.18	0.55	2.66	0.54	2.55
Dummy of low institutional ownership	0.29	0.96	0.27	0.82	0.23	0.59	0.25	0.69
Number of analysts following	0.02	2.79 *	0.02	2.86 *	0.03	3.79 *	0.02	3.55 *
Institutional share holding at Q4	0.55	1.83	0.55	1.81	0.58	2.03	0.59	2.09
Z Score	-0.05	0.37	-0.05	0.34	-0.05	0.34	-0.06	0.40
Return on assets	0.71	4.27 **	0.68	4.01 **	0.71	4.36 **	0.70	4.18 **
Tobin's q	0.00	0.01	0.00	0.11	0.00	0.11	0.00	0.07
Log total assets	-0.07	1.58	-0.07	1.51	-0.09	2.57	-0.08	2.16
Market to book value	0.00	1.25	0.00	1.56	0.00	0.99	0.00	0.78
Number of observations used	321		321		321		321	
Pseudo R^2	0.01		0.01		0.01		0.02	

Table 5 Likelihood of fraud events: No CEO perks, compensation, and corporate governance

This table further analyzes the likelihood of fraud associated with CEOs not receiving certain type of perks, controlling for compensation, corporate governance, and accounting variables. Panels A and B report the results of Logistic Model and Survival Model, respectively. In both Panels, (1) examines the effect of CEOs not receiving any perks;(2) examines the effect of CEOs not receiving any particular type of perks; (3) examines both the effects of CEOs not receiving any perks and not receiving any particular type of perks. CEO pay slice (CPS) is the share of CEO total compensation to the total compensation of the top five executives. See Appendix A for details of variable definitions and data sources. *,**, *** Significant at the 10, 5, and 1 percent levels, respectively, for a two-tailed test.

Panel A. Logistic Model

	(1)		(2)		(3)	
	Coef.	Chi-Square	Coef.	Chi-Square	Coef.	Chi-Square
Dummy of No CEO total perks	0.54	4.77 **			0.50	2.99 *
Dummy of No CEO entertainment perks			-0.40	0.51	-0.59	1.02
Dummy of No CEO home & family perks			0.25	0.18	0.06	0.01
Dummy of No CEO service perks			-0.76	2.96 *	-0.94	4.35 **
Dummy of No CEO financial & severance perks			0.89	5.98 **	0.70	3.31 *
CEO cash based compensation	-0.09	0.86	-0.11	1.41	-0.13	1.77
CEO equity based compensation	0.02	0.44	0.02	0.62	0.02	0.94
CEO Pay Slice (CPS)	2.08	3.38 *	2.24	3.80 *	1.98	2.92 *
Dummy of no analysts following	0.92	3.74 *	0.98	4.03 **	0.91	3.50 *
Dummy of low institutional ownership	0.83	3.31 *	0.78	2.81 *	0.87	3.39 *
Number of analysts following	0.03	2.79 *	0.03	3.24 *	0.03	2.99 *
Institutional share holding at Q4	1.44	5.08 **	1.46	5.21 **	1.45	5.02 **
Z Score	-0.10	0.52	-0.08	0.34	-0.08	0.38
Return on assets	1.55	8.74 **	1.54	8.78 **	1.55	8.61 **
Tobin's q	0.00	0.02	0.01	0.05	0.01	0.12
Log total assets	-0.15	3.29 *	-0.17	4.22 **	-0.16	3.51 *
Market to book value	-0.02	1.75	-0.02	1.53	-0.02	1.47
Intercept	-0.13	0.01	0.54	0.12	1.19	0.56
Number of Observations Used	321		321		321	

Pseudo R^2	0.09	0.10	0.11

Table 5 (Continued)

Panel B: Survival Model

	(1)		(2)		(3)	
	Coef.	Chi-Square	Coef.	Chi-Square	Coef.	Chi-Square
Dummy of No CEO total perks	0.33	3.82 *			0.20	1.04
Dummy of No CEO entertainment perks			-0.19	0.29	-0.28	0.58
Dummy of No CEO home & family perks			0.33	0.70	0.24	0.34
Dummy of No CEO service perks			-0.27	1.02	-0.35	1.61
Dummy of No CEO financial & severance perks			0.57	4.61 *	0.49	3.09 *
CEO cash based compensation	-0.05	0.69	-0.07	1.12	-0.07	1.31
CEO equity based compensation	0.01	0.78	0.02	0.89	0.02	1.14
CEO Pay Slice (CPS)	0.83	1.31	1.03	1.96	0.95	1.65
Dummy of no analysts following	0.50	2.27	0.56	2.81 *	0.55	2.64
Dummy of low institutional ownership	0.26	0.77	0.22	0.54	0.25	0.67
Number of analysts following	0.02	2.82 *	0.03	3.81 *	0.02	3.50 *
Institutional share holding at Q4	0.57	1.99	0.59	2.05	0.59	2.07
Z Score	-0.05	0.34	-0.05	0.33	-0.06	0.40
Return on assets	0.67	3.89 *	0.71	4.41 *	0.70	4.19 *
Tobin's q	-0.01	0.14	0.00	0.10	0.00	0.05
Log total assets	-0.07	1.56	-0.09	2.65	-0.08	2.15
Market to book value	0.00	1.48	0.00	1.07	0.00	0.84
Number of Observations Used	321		321		321	
Pseudo R^2	0.01		0.01		0.01	

Table 6 Effect of Top five executive perks, compensation, and corporate governance on the likelihood of fraud events

This table presents results regarding the likelihood of fraud associated with the top five executive perquisites, compensation, corporate governance variables, and the controlled accounting variables. Panels A and B report the results of Logistic Model and Survival Model, respectively. In both Panels, (1) examines a firm's transparency of perk disclosure; (2) examines CEO total amount of perks; (3) further examines the four main categories of CEO perks; (4) includes both the perk disclosure and the four main categories of CEO perks. Dummy of no perk disclosure is set to 1 if there is no disclosure of perks in a year; 0 otherwise. CEO pay slice (CPS) is the share of CEO total compensation to the total compensation of the top five executives. See Appendix A for details of variable definitions and data sources. *,**, *** Significant at the 10, 5, and 1 percent levels, respectively, for a two-tailed test.

Panel A. Logistic Model

	(1)		(2)		(3)		(4)	
	Coef.	Chi-Square	Coef.	Chi-Square	Coef.	Chi-Square	Coef.	Chi-Square
Dummy of no perk disclosure	0.51	3.97 **					0.51	2.48
Log Top5EXE total amount of perks			-0.04	3.18 *				
Log Top5EXE entertainment perks					-0.01	0.02	0.00	0.01
Log Top5EXE home and family perks					0.00	0.00	0.02	0.28
Log Top5EXE services perks					0.01	0.07	0.02	0.47
Log Top5EXE financial and severance perks					-0.04	2.53	-0.02	0.75
Log Top5EXE cash based compensation	0.14	0.29	0.15	0.33	0.16	0.37	0.12	0.21
Log Top5EXE equity based compensation	0.05	3.44 *	0.05	3.27 *	0.05	2.90 *	0.05	3.44 *
CEO pay slice (CPS)	1.71	2.94 *	1.73	3.00 *	1.82	3.22 *	1.76	3.01 *
Dummy of no analysts following	0.87	3.30 *	0.89	3.46 *	0.91	3.53 *	0.82	2.85 *
Dummy of low institutional ownership	0.80	3.04 *	0.79	3.01 *	0.70	2.36	0.80	3.02 *
Number of analysts following	0.03	1.82	0.03	1.82	0.03	1.96	0.03	1.79
Institutional share holding at Q4	1.30	4.18 **	1.30	4.18 **	1.26	3.99 **	1.27	3.94 **
Z Score	-0.11	0.64	-0.11	0.62	-0.11	0.58	-0.11	0.61
Return on assets	1.60	9.35 ***	1.57	9.19 ***	1.53	8.94 ***	1.56	8.78 ***
Tobin's q	0.01	0.09	0.01	0.10	0.01	0.19	0.01	0.22
Log total assets	-0.22	3.95 **	-0.22	3.79 *	-0.23	4.21 **	-0.22	3.75 *
Market to book value	-0.02	1.58	-0.02	1.59	-0.02	1.62	-0.02	1.56
Intercept	-2.97	0.77	-2.69	0.63	-2.88	0.72	-2.73	0.64
Number of observations used	321		321		321		321	
Pseudo R^2	0.09		0.09		0.09		0.09	

Table 6 (Continued)

Panel B. Survival Model

	(1)		(2)		(3)		(4)	
	Coef.	**Chi-Square**	**Coef.**	**Chi-Square**	**Coef.**	**Chi-Square**	**Coef.**	**Chi-Square**
Dummy of no perk disclosure	0.27	2.56					0.20	0.83
Log Top5EXE total amount of perks			-0.02	2.26				
Log Top5EXE entertainment perks					0.00	0.01	0.01	0.05
Log Top5EXE home and family perks					-0.01	0.17	0.00	0.00
Log Top5EXE services perks					-0.01	0.20	0.00	0.02
Log Top5EXE financial and severance perks					-0.02	1.31	-0.01	0.49
Log Top5EXE cash based compensation	0.11	0.41	0.11	0.45	0.13	0.55	0.11	0.44
Log Top5EXE equity based compensation	0.03	2.06	0.03	1.96	0.03	1.76	0.03	2.03
CEO pay slice (CPS)	0.76	1.25	0.76	1.27	0.81	1.41	0.80	1.41
Dummy of no analysts following	0.48	2.12	0.49	2.18	0.52	2.40	0.49	2.10
Dummy of low institutional ownership	0.25	0.68	0.25	0.69	0.20	0.45	0.23	0.60
Number of analysts following	0.02	1.69	0.02	1.67	0.02	1.91	0.02	1.69
Institutional share holding at Q4	0.53	1.69	0.53	1.67	0.51	1.53	0.52	1.62
Z Score	-0.07	0.56	-0.07	0.54	-0.06	0.43	-0.06	0.52
Return on assets	0.71	4.44 **	0.70	4.41 **	0.70	4.51 **	0.69	4.32 **
Tobin's q	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00
Log total assets	-0.12	2.61	-0.11	2.52	-0.12	2.97 *	-0.12	2.59
Market to book value	0.00	1.04	0.00	1.11	0.00	1.20	0.00	0.96
Number of observations used	321		321		321		321	
Pseudo R^2	0.01		0.01		0.01		0.01	

Table 7 Likelihood of fraud events: CEO vs. Top five executives

In this table, we put both the CEO and top five executive perquisites and compensation variables in the same regression to examine the likelihood of fraud associated with executive perquisites, compensation, corporate governance variables, and the controlled accounting variables. (1) and (2) report the results of Logistic Model and Survival Model, respectively. Dummy of no perk disclosure is set to 1 if there is no disclosure of perks in a year; 0 otherwise. CEO pay slice (CPS) is the share of CEO total compensation to the total compensation of the top five executives. See Appendix A for details of variable definitions and data sources. *,**, *** Significant at the 10, 5, and 1 percent levels, respectively, for a two-tailed test.

	(1) Logistic Model		(2) Survival Model	
	Coef.	**Chi-Square**	**Coef.**	**Chi-Square**
Dummy of no perk disclosure	0.57	3.02 *	0.22	0.93
Log CEO entertainment perks	0.05	0.27	0.02	0.06
Log CEO home and family perks	-0.03	0.23	-0.03	0.57
Log CEO services perks	0.12	2.48	0.08	1.80
Log CEO financial and severance perks	-0.10	4.61 **	-0.07	4.21 **
Log Top5EXE entertainment perks	-0.02	0.09	0.00	0.00
Log Top5EXE home and family perks	0.02	0.36	0.00	0.02
Log Top5EXE services perks	-0.05	0.50	-0.05	0.95
Log Top5EXE financial and severance perks	0.04	0.95	0.03	1.16
CEO cash based compensation	-0.14	1.51	-0.08	1.79
CEO equity based compensation	-0.02	0.20	0.00	0.00
Log Top5EXE cash based compensation	0.28	0.80	0.21	1.27
Log Top5EXE equity based compensation	0.06	2.29	0.03	0.98
CEO pay slice (CPS)	2.72	4.63 **	1.21	2.27
Dummy of no analysts following	0.95	3.49 *	0.61	3.13 *
Dummy of low institutional ownership	0.81	2.81 *	0.22	0.50
Number of analysts following	0.03	2.72 *	0.02	3.29 *
Institutional share holding at Q4	1.43	4.77 **	0.62	2.28
Z Score	-0.12	0.64	-0.08	0.83
Return on assets	1.64	9.05 ***	0.76	4.96 **
Tobin's q	0.00	0.00	-0.01	0.38
Log total assets	-0.25	4.47 **	-0.15	3.98 **
Market to book value	-0.02	1.39	0.00	0.60
Intercept	-3.37	0.91		
Number of observations used	321		321	
Pseudo R^2	0.12		0.02	

Table 8 Likelihood of fraud events: 56 firm pairs with fraud executive name

This table conducts a robustness test by only including those frauds for which we are able to identify a person's name in the AAER report, even though the person named may not necessarily be the CEO or one of the top five executives. The results presented here show the likelihood of fraud associated with the CEO/top five executives' perquisites & compensation, corporate governance variables, and the controlled accounting variables. Panels A and B report the results of Logistic Model and Survival Model, respectively. In both Panels, (1) examines the CEO perks and compensation, (2) examines the top five executives' perks and compensation, and (3) examine both the CEO and top five executive perquisites and compensation variables, respectively. Dummy of no perk disclosure is set to 1 if there is no disclosure of perks in a year; 0 otherwise. CEO pay slice (CPS) is the share of CEO total compensation to the total compensation of the top five executives. See Appendix A for details of variable definitions and data sources. *,**, *** Significant at the 10, 5, and 1 percent levels, respectively, for a two-tailed test.

Panel A. Logistic Model

	(1)		(2)		(3)	
	Coef.	**Chi-Square**	**Coef.**	**Chi-Square**	**Coef.**	**Chi-Square**
Dummy of no perk disclosure	0.71	4.41 **	0.65	2.86 *	0.94	5.35 **
Log CEO entertainment perks	0.09	1.73			0.05	0.15
Log CEO home and family perks	0.04	0.40			0.00	0.00
Log CEO services perks	0.12	5.06 **			0.27	5.20 **
Log CEO financial and severance perks	-0.16	11.73 ***			-0.19	9.14 ***
Log Top5EXE entertainment perks			0.06	1.60	0.04	0.16
Log Top5EXE home and family perks			-0.02	0.21	0.02	0.21
Log Top5EXE services perks			0.01	0.13	-0.15	1.95
Log Top5EXE financial and severance perks			-0.05	2.27	0.06	1.55
CEO cash based compensation	0.14	0.45			0.37	1.14
CEO equity based compensation	0.06	3.38 *			0.02	0.10
Log Top5EXE cash based compensation			0.09	0.09	-0.43	0.70
Log Top5EXE equity based compensation			0.07	4.41 **	0.06	1.38
CEO pay slice (CPS)	-0.90	0.35	0.52	0.19	-0.92	0.24
Dummy of no analysts following	0.85	1.79	0.71	1.26	0.73	1.23
Dummy of low institutional ownership	1.00	3.07 *	1.03	3.46 *	1.15	3.68 *
Number of analysts following	0.03	1.67	0.04	2.15	0.03	1.23
Institutional share holding at Q4	1.04	1.83	0.96	1.56	1.12	1.95
Z Score	0.22	1.29	0.18	0.83	0.27	1.72
Return on assets	2.03	7.20 **	1.93	7.48 **	2.15	7.57 **

		*		*		*
Tobin's q	0.00	0.02	0.01	0.05	-0.01	0.28
Log total assets	-0.23	4.47 **	-0.25	3.82 *	-0.18	1.73
Market to book value	-0.01	0.39	-0.01	0.76	-0.01	0.41
Intercept	-2.16	0.93	-2.10	0.28	0.06	0.00
Number of observations used	242		242		242	
Pseudo R^2	0.17		0.13		0.19	

Table 8 (Continued)

Panel B. Survival Model

	(1)		(2)		(3)	
	Coef.	**Chi-Square**	**Coef.**	**Chi-Square**	**Coef.**	**Chi-Square**
Dummy of no perk disclosure	0.30	1.76	0.20	0.59	0.34	1.59
Log CEO entertainment perks	0.05	1.19			-0.02	0.08
Log CEO home and family perks	0.00	0.00			-0.01	0.05
Log CEO services perks	0.04	1.85			0.19	3.77 *
Log CEO financial and severance perks	-0.10	6.97 **			-0.11	6.08 *
Log Top5EXE entertainment perks			0.04	1.60	0.06	0.90
Log Top5EXE home and family perks			-0.02	0.60	-0.01	0.11
Log Top5EXE services perks			-0.02	0.45	-0.15	2.53
Log Top5EXE financial and severance perks			-0.02	0.85	0.04	1.91
CEO cash based compensation	0.12	0.65			0.08	0.09
CEO equity based compensation	0.02	1.41			0.00	0.03
Log Top5EXE cash based compensation			0.14	0.49	0.04	0.01
Log Top5EXE equity based compensation			0.03	2.08	0.03	0.76
CEO pay slice (CPS)	-0.27	0.07	0.44	0.29	0.08	0.00
Dummy of no analysts following	0.72	2.77 *	0.72	2.65	0.76	2.88 *
Dummy of low institutional ownership	0.20	0.30	0.19	0.28	0.22	0.34
Number of analysts following	0.03	2.87 *	0.03	2.83 *	0.03	3.22 *
Institutional share holding at Q4	0.50	1.06	0.45	0.86	0.55	1.24
Z Score	0.05	0.22	0.04	0.15	0.05	0.19
Return on assets	0.99	4.43 **	1.02	4.82 *	1.16	5.62 *

Tobin's q	0.00	0.11	0.00	0.02	-0.01	0.78
Log total assets	-0.15	4.01 **	-0.17	3.90 *	-0.17	3.57 *
Market to book value	0.00	0.03	0.00	0.37	0.00	0.02
Number of observations used	242		242		242	
Pseudo R^2	0.03		0.02		0.03	

Table 9. Likelihood of fraud events: two stage regressions to address the concern that corporate governance and perks are related

This table conducts a two-stage regression to address the concern that corporate governance and perks are related. The first stage runs a regression of corporate governance variables on perks, treating the residual perks as unrelated to corporate governance variables. The second stage then incorporates the residual perks into the original model to see whether the results of perks remain.

First stage regression:

$$Perks_{it} = \beta_0 + \beta_1 CPS_{it} + \beta_2 Dummy\,of\ no\,analyst\ following_{it} + \beta_3 Dummy\,of\ low\,institutional\,ownership_{it} + \beta_4 Number\,of\ analyst\ following_{it} + \beta_5 Ratio\,of\ Institutioal\ shareholding_{it} + \varepsilon$$

Second stage regression:

$$Fraud_{it} = \gamma_0 + \gamma_1 \mathrm{Re}\,sidual\ perks_{it} + \gamma_2 Compensation_{it} + \gamma_3 CPS_{it} + \gamma_4 Monitoring\,by\,analysts\,\&\,institutional\,investors + \gamma_5 Control_{it} + \varepsilon$$

The first stage results are presented in Panel A. The second stage results of Logistic Model and Survival Model are presented in Panels B and C, respectively. In all Panels, (1) examines CEO total amount of perks, (2) examines entertainment perks, (3) examines home & family perks, (4) examine service perks, and (5) examine financial & severance perks, respectively. See Appendix A for details of variable definitions and data sources. *,**, *** Significant at the 10, 5, and 1 percent levels, respectively, for a two-tailed test.

Panel A. 1st stage: Perk variables regressed on CEO power and outside monitoring variables

Independent variable:	(1) Total Perk		(2) Entertain Perk		(3) Home & Family		(4) Service Perk		(5) Financial Perk	
	Coef.	T-value	Coef.	T-value	Coef.	T-value	Coef.	T-value	Coef.	T-value
CEO Pay Slice (CPS)	4.16	1.93 *	0.42	0.52	0.92	0.86	2.28	1.99 **	4.64	2.95 ***
Dummy of no analysts following	0.90	0.89	-0.42	-1.09	0.01	0.01	0.34	0.62	1.45	1.95 *
Dummy of low institutional ownership	0.16	0.16	0.33	0.89	0.17	0.34	-0.07	-0.13	-1.06	-1.46
Number of analysts following	0.04	1.28	0.00	0.34	-0.02	-1.02	0.02	1.20	0.02	0.88
Institutional share holding at Q4	1.02	0.78	0.30	0.60	0.03	0.04	-0.51	-0.74	0.61	0.64
Intercept	2.17	2.02 **	0.21	0.51	0.39	0.74	-0.05	-0.09	-0.67	-0.85
Number of Observations Used	393		393		393		393		393	
R^2	0.050		0.012		0.008		0.016		0.034	

Table 9 (Continued)

Panel B. Logistic Model

Independent variable: Fraud	(1) Total Perk		(2) Entertain Perk		(3) Home & Family		(4) Service Perk		(5) Financial Perk	
	Coef.	Chi-Square	Coef.	Chi-Square	Coef.	Chi-Square	Coef.	Chi-Square	Coef.	Chi-Square
Residual Log CEO total perks	-0.04	3.02 *								
Residual Log CEO entertainment perks			0.03	0.26						
Residual Log CEO home & family perks					-0.04	0.49				
Residual Log CEO service perks							0.05	1.23		
Residual Log CEO financial & severance perks									-0.09	6.78 ***
CEO cash based compensation	-0.09	0.91	-0.10	1.27	-0.10	1.19	-0.11	1.35	-0.10	1.07
CEO equity based compensation	0.02	0.39	0.01	0.30	0.01	0.30	0.01	0.30	0.02	0.60
CEO Pay Slice (CPS)	1.99	3.14 *	2.09	3.43 *	2.06	3.39 *	2.04	3.27 *	1.97	2.97 *
Dummy of no analysts following	0.87	3.36 *	0.90	3.59 *	0.91	3.67 *	0.89	3.54 *	0.84	3.02 *
Dummy of low institutional ownership	0.82	3.28 *	0.82	3.36 *	0.82	3.28 *	0.83	3.37 *	0.87	3.52 *
Number of analysts following	0.03	2.49	0.03	2.94 *	0.03	3.04 *	0.03	3.19 *	0.03	2.70
Institutional share holding at Q4	1.36	4.58 **	1.41	5.04 **	1.40	4.90 **	1.41	5.00 **	1.39	4.72 **
Z Score	-0.09	0.49	-0.09	0.43	-0.09	0.47	-0.10	0.52	-0.08	0.36
Return on assets	1.55	8.81 ***	1.59	9.32 ***	1.59	9.39 ***	1.61	9.36 ***	1.52	8.73 ***
Tobin's q	0.00	0.04	0.01	0.12	0.01	0.12	0.01	0.13	0.00	0.04
Log total assets	-0.15	3.18 *	-0.16	4.16 **	-0.17	4.24 **	-0.17	4.45 **	-0.15	3.55 *
Market to book value	-0.02	1.76	-0.02	1.63	-0.02	1.75	-0.02	1.69	-0.02	1.63
Intercept	0.27	0.05	0.50	0.19	0.48	0.17	0.60	0.27	0.35	0.09
Number of Observations Used			321		321		321		321	
Pseudo R^2	0.09		0.08		0.08		0.08		0.10	

Table 9 (Continued)

Panel C. Survival Model

Independent variable: Fraud	(1) Total Perk		(2) Entertain Perk		(3) Home & Family		(4) Service Perk		(5) Financial Perk	
	Coef.	Chi-Square	Coef.	Chi-Square	Coef.	Chi-Square	Coef.	Chi-Square	Coef.	Chi-Square
Residual Log CEO total perks	-0.03	2.94 *								
Residual Log CEO entertainment perks			0.01	0.13						
Residual Log CEO home & family perks					-0.03	0.78				
Residual Log CEO service perks							0.01	0.24		
Residual Log CEO financial & severance perks									-0.06	5.57 **
CEO cash based compensation	-0.05	0.73	-0.07	1.10	-0.06	1.07	-0.07	1.11	-0.06	0.86
CEO equity based compensation	0.01	0.72	0.01	0.56	0.01	0.50	0.01	0.55	0.02	1.03
CEO Pay Slice (CPS)	0.77	1.13	0.79	1.17	0.85	1.31	0.76	1.10	0.71	0.98
Dummy of no analysts following	0.47	1.97	0.50	2.27	0.50	2.27	0.51	2.31	0.44	1.76
Dummy of low institutional ownership	0.26	0.79	0.27	0.81	0.26	0.73	0.26	0.77	0.30	1.01
Number of analysts following	0.02	2.52	0.02	3.18 *	0.02	3.29 *	0.02	3.28 *	0.02	3.11 *
Institutional share holding at Q4	0.52	1.63	0.56	1.80	0.53	1.68	0.56	1.82	0.54	1.79
Z Score	-0.05	0.34	-0.04	0.23	-0.05	0.27	-0.05	0.26	-0.05	0.30
Return on assets	0.68	4.01 **	0.74	4.48 **	0.74	4.60 **	0.75	4.57 **	0.71	4.39 **
Tobin's q	0.00	0.11	0.00	0.05	0.00	0.03	0.00	0.04	0.00	0.12
Log total assets	-0.07	1.51	-0.08	2.26	-0.08	2.33	-0.08	2.36	-0.08	2.20
Market to book value	0.00	1.56	0.00	0.79	0.00	1.79	0.00	1.25	0.00	0.96
Number of Observations Used	321		321		321		321		321	
Pseudo R^2	0.01		0.01		0.01		0.01		0.01	

Table 10. Likelihood of fraud events: two stage regressions to address the possible endogeneity issue

This table conducts a two-stage regression to address the concern that perks and the likelihood of firms experiencing financial fraud could be simultaneously determined. The first stage runs a regression on determinants of perks to obtain predicted value of perks. The second stage then incorporates the predicted perks into the original model to see whether the results of perks remain.

First stage regression:

$$Perks_{it} = \beta_0 + \beta_1 Performance\ \&\ Accounting_{it} + \beta_2 CPS_{it} + \beta_3 Monitoring\ by\ analysts\ \&\ institutional\ investors_{it} + \varepsilon$$

Second stage regression:

$$Fraud_{it} = \gamma_0 + \gamma_1 \Pr edicted\ Perks_{it} + \gamma_2 Compensation_{it} + \gamma_3 CPS_{it} + \gamma_4 Monitoring\ by\ analysts\ \&\ institutional\ investors + \gamma_5 Control_{it} + \varepsilon$$

The first stage results are presented in Panel A. The second stage results of Logistic Model and Survival Model are presented in Panels B and C, respectively. In all Panels, (1) examines CEO total amount of perks, (2) examines entertainment perks, (3) examines home & family perks, (4) examine service perks, and (5) examine financial & severance perks, respectively. See Appendix A for details of variable definitions and data sources. *,**, *** Significant at the 10, 5, and 1 percent levels, respectively, for a two-tailed test.

Panel A. 1st stage regression: determinants of perks

Independent variable:	(1) Total Perk		(2) Entertain Perk		(3) Home & Family		(4) Service Perk		(5) Financial Perk	
	Coef.	T-value	Coef.	T-value	Coef.	T-value	Coef.	T-value	Coef.	T-value
Z Score	0.21	0.59	-0.11	-0.90	0.18	1.14	0.11	0.56	0.23	0.84
Return on assets	-2.32	-2.04 **	-0.01	-0.04	-0.33	-0.65	-0.33	-0.53	-1.80	-2.07 **
Log total assets	0.68	3.25 ***	0.10	1.39	-0.14	-1.50	0.20	1.73 *	0.24	1.52
One-year stock returns - value adj.	-0.35	-1.05	-0.08	-0.65	-0.10	-0.68	0.06	0.30	-0.25	-1.00
CEO Pay Slice (CPS)	8.69	2.92 ***	-0.18	-0.17	1.09	0.82	3.21	1.93 *	6.55	2.88 ***
Dummy of no analysts following	0.61	0.49	-0.18	-0.40	0.36	0.65	0.76	1.09	0.74	0.77
Dummy of low institutional ownership	-1.29	-1.06	-0.04	-0.09	-0.22	-0.41	-0.33	-0.49	-1.55	-1.67 *
Number of analysts following	-0.03	-0.76	0.00	0.04	0.01	0.41	-0.01	-0.56	0.00	0.04
Institutional share holding at Q4	-0.29	-0.19	0.59	1.06	-0.60	-0.86	0.08	0.09	-0.13	-0.11
Intercept	-2.39	-1.34	-0.21	-0.33	0.88	1.12	-1.81	-1.81 *	-2.36	-1.73 *
Number of Observations Used	265		265		265		265		265	
R^2	0.09		0.05		0.04		0.04		0.07	

Table 10 (Continued)

Panel B. Logistic Model

Independent variable: Fraud	(1) Total Perk		(2) Entertain Perk		(3) Home & Family		(4) Service Perk		(5) Financial Perk	
	Coef.	Chi-Square	Coef.	Chi-Square	Coef.	Chi-Square	Coef.	Chi-Square	Coef.	Chi-Square
Predicted Log CEO total perks	-0.35	7.74 ***								
Predicted Log CEO entertainment perks			-1.08	1.92						
Predicted Log CEO home & family perks					-0.70	1.63				
Predicted Log CEO service perks							-0.65	1.84		
Predicted Log CEO financial & severance perks									-0.84	10.35 ***
CEO cash based compensation	-0.11	0.75	-0.15	1.39	-0.31	2.94 *	-0.14	1.20	-0.15	1.49
CEO equity based compensation	0.01	0.10	0.00	0.00	-0.01	0.22	0.00	0.00	0.01	0.07
CEO Pay Slice (CPS)	3.91	6.18 **	1.23	0.87	2.50	2.75 *	3.29	3.26 *	6.37	9.67 ***
Dummy of no analysts following	1.20	5.01 **	0.72	1.94	1.03	3.71 *	1.40	4.46 **	1.59	7.74 ***
Dummy of low institutional ownership	0.47	0.87	0.68	1.90	0.46	0.82	0.52	1.10	-0.33	0.32
Number of analysts following	0.03	3.36 *	0.03	2.69	0.01	0.76	0.02	1.75	0.04	5.09 **
Institutional share holding at Q4	1.84	7.45 ***	2.59	9.48 ***	1.45	3.67 *	1.97	8.63 ***	1.76	6.79 ***
Z Score	-0.13	0.72	-0.28	2.76 *	-0.05	0.08	-0.10	0.41	-0.04	0.08
Tobin's q	-0.02	0.56	-0.01	0.06	0.01	0.05	0.00	0.00	-0.03	0.92
Market to book value	-0.01	0.48	-0.01	0.61	-0.01	0.92	-0.01	0.65	-0.01	0.53
Intercept	0.41	0.07	0.71	0.22	2.65	1.33	-0.11	0.00	-0.29	0.04
Number of Observations Used	265		265		265		265		265	
Pseudo R^2	0.07		0.05		0.05		0.05		0.08	

Table 10 (Continued)

Panel C. Survival Model

Independent variable: Fraud	(1) Total Perk		(2) Entertain Perk		(3) Home & Family		(4) Service Perk		(5) Financial Perk	
	Coef.	Chi-Square	Coef.	Chi-Square	Coef.	Chi-Square	Coef.	Chi-Square	Coef.	Chi-Square
Predicted Log CEO total perks	-0.18	4.17 **								
Predicted Log CEO entertainment perks			-0.49	0.77						
Predicted Log CEO home & family perks					-0.38	1.21				
Predicted Log CEO service perks							-0.32	0.87		
Predicted Log CEO financial & severance perks									-0.43	6.33 **
CEO cash based compensation	-0.09	0.71	-0.11	1.48	-0.16	4.86 **	-0.11	1.22	-0.11	1.41
CEO equity based compensation	0.01	0.31	0.00	0.07	0.00	0.00	0.01	0.11	0.01	0.34
CEO Pay Slice (CPS)	1.65	2.71 *	0.37	0.20	0.98	1.09	1.36	1.26	2.88	4.96 **
Dummy of no analysts following	0.64	2.81 *	0.38	1.06	0.51	1.81	0.71	2.16	0.84	4.35 **
Dummy of low institutional ownership	0.13	0.14	0.23	0.47	0.13	0.13	0.16	0.22	-0.28	0.48
Number of analysts following	0.02	3.69 *	0.02	2.56	0.01	1.05	0.02	2.30	0.03	5.06 **
Institutional share holding at Q4	0.71	2.72 *	1.04	3.39 *	0.46	0.87	0.78	3.20 *	0.68	2.45
Z Score	-0.08	0.58	-0.15	1.55	-0.05	0.17	-0.07	0.38	-0.04	0.13
Tobin's q	-0.02	0.80	-0.01	0.22	0.00	0.01	-0.01	0.11	-0.02	1.17
Market to book value	0.00	0.15	0.00	0.25	0.00	0.67	0.00	0.33	0.00	0.24
Number of Observations Used	265		265		265		265		265	
Pseudo R^2	0.01		0.01		0.01		0.01		0.01	