Do shareholders welcome court intervention in CEO pay matters?

Ana Albuquerque*
Boston University School of Management
albuquea@bu.edu

Mary Ellen Carter
Carroll School of Management
Boston College
maryellen.carter@bc.edu

Luann J. Lynch
Darden Graduate School of Business
University of Virginia
LynchL@darden.virginia.edu

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Abstract

We use an unanticipated court ruling in a lawsuit against Citigroup claiming corporate waste related to CEO pay as a natural experiment to analyze shareholders’ view of court intervention in cases of excess pay. Shareholders of firms with excess pay react negatively to the ruling, consistent with shareholders perceiving court intervention as net costly; however, when excess pay is accompanied by poor performance, shareholders respond positively. We also find that firms with excess pay and whose shareholders welcome intervention have lower increases in future pay suggesting that the threat of court intervention is a potential mechanism to control excess pay.

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* Corresponding author: Tel.: +1 617-358-4185; Fax: +1 617-353-6667; 595 Commonwealth Ave., Boston, MA, 02215.
1. Introduction

“Directors Should Exercise Special Care in Approving Compensation Packages. It is too early to know whether Delaware courts will be more willing to entertain corporate waste claims based on executive compensation, but given the Chancellor’s statements in this context, it is likely that more waste claims will be brought by shareholder plaintiffs. Notwithstanding the deference that the Delaware courts continue to provide to most board decisions, directors should exercise special care when determining compensation packages for executives.” Law firm Perkins Coie, April 4, 2009.1

Executive pay has been the subject of much debate in recent years. While some argue that pay is set in a way that reflects efficient contracting, compensation critics argue that pay often is excessive, reflecting self-serving behavior on the part of the executive, and that current corporate governance structures have not been able to inhibit excessive pay practices. Although prior research finds lower excess pay in the presence of better governance (e.g., Core, Holthausen, and Larcker, 1999), other factors work in favor of shareholder interests to deter rent extraction by executives, including regulatory intervention and the influence of shareholders through say-on-pay votes or through initiating litigation. However, prior research finds mixed evidence regarding shareholder enthusiasm for regulation of governance or pay (e.g., Graham and Wu, 2007; Kim, 2010; Larcker, Ormazabal, and Taylor, 2011; Becker, Bergstresser and Subramaniam, 2012) and shareholder desire for involvement in pay matters through say-on-pay (e.g., Larcker et al., 2011; Cai and Walkling, 2011). Our study complements this literature by providing first evidence on shareholders’ views on court intervention in the pay process.

We examine whether court intervention into the compensation setting process, as an alternative corporate governance mechanism to control excessive pay, is perceived as desirable by shareholders. We exploit an unexpected ruling by the Delaware Court of Chancery in denying a motion to dismiss a corporate waste claim against Citigroup regarding the pay package being offered to its departing CEO as a natural experiment to measure the market’s reaction to court intervention. This ruling, on February 24, 2009, was viewed by experts as unexpected, particularly given the Chancery Court’s opposite decision

regarding Walt Disney in 2005 where the Court exonerated all Disney defendants from liability (Jones, 2011; Caywood, 2010). Further, courts traditionally have not successfully intervened in the executive pay setting process under the doctrine of corporate waste (Thomas and Martin, 2001, Bebchuk, Fried and Walker, 2002, and Bebchuk and Fried, 2004). The ruling was not an assessment of whether pay was excessive but merely allowed the claim to proceed, whereas such claims have typically been dismissed at this point in the past. Thus, the Citigroup ruling opened the door for possible future court intervention in the pay setting process.

Our sample consists of 1,695 non-financial firms from ExecuComp. We examine abnormal returns around the announcement to determine whether the ruling is perceived as good news to shareholders. In cross-sectional tests, we examine whether the announcement period returns are related to excess CEO pay, after controlling for a number of other factors. Finally, we examine whether firms most likely affected by intervention react to the possibility of court intervention with decreases in subsequent excess pay.

We find, on average, significantly negative abnormal returns for the three days beginning on February 24th, suggesting that shareholders do not welcome court intervention as an avenue to influence executive pay practices. In multivariate analyses, we also find a negative relation between excess pay and announcement returns, suggesting that shareholders of firms with a greater likelihood of court intervention perceive that potential intervention as net costly. However, we find positive announcement returns for firms with greater excess pay that is accompanied by poor performance, suggesting that court intervention may be viewed as a substitute mechanism to rein in excesses in firms that have more egregious CEO compensation packages.

In firms where shareholders welcome court intervention and where court intervention is more likely, we expect to see tempering of pay packages. Indeed, we find lower increases in pay in those firms whose shareholders react more positively to the ruling and that have greater excess pay, suggesting that corporate boards take actions to prevent future potential shareholder unrest. Examining marginal effects,
we find that firms for which their shareholders are relatively more likely to initiate claims – those at the top quartile for excess pay and whose shareholders react positively to the court ruling – decrease the level of excess CEO pay by more than double the decrease in firms at the median level of excess pay.

Collectively, our results show a consistent reaction to this ruling by both shareholders and firms. On average, shareholders react negatively to the ruling. However, shareholders of firms with excess pay accompanied by poor performance respond positively. In addition, firms appear to respond to the court ruling; firms whose shareholders view court intervention more favorably, and in which intervention is more likely, reduce excess pay relative to other firms.

Our setting poses challenges that we attempt to address in additional analyses. First, the announcement occurs during volatile economic times, making it difficult to estimate abnormal returns and to control for concurrent announcements. To address this issue, we replicate our analyses using several alternative measures of abnormal returns, and we control for any announcement effect of the concurrent court ruling regarding breach of fiduciary duty. Second, our tests require proxies for excess pay, which is inherently noisy to measure. We would expect that noise in our independent variable would hinder our ability to detect a significant relation between announcement returns and pay; however, we are able to detect such a relation. And, we continue to find a relation between pay and announcement returns using three alternative measures of excess compensation. Third, because of the uniqueness of the ruling, we have only one announcement to work with, and the reaction to that announcement may not be generalizable to the population. While we cannot change the nature of the announcement or alter our tests to address this concern, we can interpret our evidence in light of this limitation. If the Citigroup announcement is insignificant or does not have implications for other firms, we would not expect to detect any relation between the reaction to the announcement and future changes in pay. However, we do find that firms with greater risk of future shareholder litigation reduce excess pay relative to other firms, suggesting that firms perceive some spillover effect from the Court’s willingness to consider the issue of executive pay.
We make several contributions to the literature. Prior research finds mixed evidence regarding shareholder enthusiasm for involvement in executive pay matters, particularly through say-on-pay votes. Our setting is a more powerful one to examine how shareholders value their ability to influence executive pay. First, the ruling was specifically targeted at curbing excessive executive pay, whereas say-on-pay legislation is targeted towards soliciting shareholder feedback on pay in general. Second, litigation through the courts allows shareholders to directly intervene in pay matters, whereas say-on-pay legislation generally provides the opportunity for a non-binding shareholder vote. Third, the ruling was arguably more unexpected than recent news events regarding say-on-pay examined in other studies, so our setting is a more powerful one in which to examine shareholders’ enthusiasm for involvement in matters of executive pay. While legal scholars have raised the possibility that intervention in executive pay by the courts should appeal to shareholders (Thomas and Wells, 2011), we know of no other study that has examined this question. Thus, we contribute some of the first evidence as to whether such intervention is viewed favorably or not.

2. Background

2.1 The Citigroup, Inc. Shareholder Derivative Lawsuit

Traditionally, it has been difficult to establish the claim of corporate waste in court. Courts most often apply the business judgment rule and decline to override board decisions related to executive compensation (Bebchuk and Fried, 2004). To successfully bring a claim of corporate waste, one has to establish that an exchange between parties is so one-sided and egregious that virtually anyone would consider it a waste of corporate resources. In addition, in Delaware, shareholder plaintiffs must overcome

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2 Cooch (2011) defines the business judgment rule as “the presumption enjoyed by corporate boards that their actions are presumed to be made on an informed basis, in good faith, and in the honest belief that the action taken was in the best interests of the company.”

3 Examples of the standard against which claims of corporate waste are judged include “an exchange that is so one sided that no business person of ordinary, sound judgment could conclude that the corporation has received adequate consideration.” (Brehm v. Eisner 746 A.2d (Del. 2000)). And “… the plaintiff must overcome the general presumption of good faith by showing that the board’s decision was so egregious or irrational that it could not have
a demand requirement to file the suit. 4 This essentially gives the board control of the shareholder litigation, and rarely results in the admission of any claim into court. As a result, courts have rarely intervened successfully in the process of setting executive compensation under the doctrine of corporate waste in publicly traded companies (e.g., Thomas and Martin, 2001, Bebchuk, et al., 2002, and Bebchuk and Fried, 2004). 5 Thomas and Wells (2011) note that in much of the prior litigation related to pay, the courts have applied the waste doctrine when evaluating the level of compensation, but that the standard of compensation being so egregious as to constitute waste is rarely met. In those cases, the courts have been reluctant to overturn board decisions that have been made in the context of straightforward procedures (e.g., having a compensation committee that is basically independent and informed, consulting with outside experts). 6 Barris (1992) reports that in almost all cases since 1900 involving publicly traded firms, courts have not been able to overturn board compensation decisions.

In the case Citigroup, Inc. Shareholder Derivative Litigation, 7 Citigroup’s shareholders filed a derivative suit against Citigroup’s Board of Directors as a result of large losses that resulted from the subprime mortgage crisis. 8 The suit, filed in the Delaware Court of Chancery on November 9, 2007, by a

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4 Demand requires that shareholders demonstrate that the board refuses to bring suit on behalf of the corporation against the defendant, or that such a request of the board would be futile. See Thomas and Martin (2001) for a detailed discussion of this demand requirement and plaintiffs’ success rates in meeting that requirement.

5 Thomas and Martin (2001) do document some success in executive pay cases, particularly in litigation against closely held corporations and in litigation in non-Delaware courts.

6 Thomas and Wells (2011) offer an explanation for the hesitancy of courts to overturn board decisions related to pay, advocate the use of the courts in resolving pay issues, and propose an alternative doctrine under which courts could pursue involvement in the process.


8 A shareholder derivative lawsuit is a special case of shareholder suit and differs from class action lawsuits. Derivative lawsuits are brought on behalf of the corporation as a whole, representing the welfare of all shareholders. In contrast, class action lawsuits are filed by a subset of shareholders, when alleged negligence or fraud by a company's directors or officers leads to a loss of shareholder value, and only those shareholders receive the monetary rewards that may be obtained from the lawsuit. Ferris, Jandik, Lawless, and Makhija (2007) state that a
group of Citigroup shareholders against the 13 then-current members of the Citigroup board, several
former directors, and a number of former and current officers and senior management of Citigroup,
alleged breach of fiduciary duties, lack of oversight, and waste by the Board. Specifically, shareholders
alleged that the Board breached its fiduciary duty by failing to monitor and oversee the exposure of the
company to the problems in subprime mortgages and by failing to ensure that the company’s reporting
and disclosure related to that exposure was adequate. In addition, shareholders brought four claims of
corporate waste, including, most relevant to our study, one related to the pay package of the outgoing
CEO, Charles Prince. A letter of agreement between Citigroup and Prince, dated November 4, 2007,
indicated that upon his leaving the company, he would receive $68 million in salary, bonus, and
accumulated stock, and an administrative assistant, a car, and a driver for five years or until he
commenced employment full-time with another company. In return for these payments and benefits,
Prince would sign non-disparagement, non-solicitation, and non-compete agreements, and a release of
claims against the company. On February 24, 2009, the Delaware Court of Chancery dismissed all
claims in the Citigroup litigation 

This case became one of the few cases related to compensation in which the courts did not defer
to the business judgment rule but allowed that a compensation contract might, indeed, be so egregious as
to meet the thus-far virtually unmet standard of corporate waste. Alternatively, some have suggested that
derivative lawsuit represents a legal mechanism to address agency problems that exist between shareholders and
management, where shareholders can enforce claims of the corporation against managing officers and directors of
the corporation.

9 The plaintiffs were Montgomery County Employees’ Retirement Fund, City of New Orleans Employees’
Retirement System, Sheldon M. Pekin Irrevocable Descendants Trust Dated 10/01/01, and Carole Kops, all owners
of shares of Citigroup stock.

10 See the following for summaries of the claims and the outcome of the case: Cooch (2011),
http://www.delawarelitigation.com/2009/02/articles/chancery-court-updates/chancery-court-dismisses-shareholder-
claims-against-citigroup-for-failure-to-monitor-subprime-risks-but-allows-waste-claim-for-ceo-pay/.

11 Although the case was ultimately dismissed (see court filings under docket number 3338-VCG (Del. Ch.)
(Glasscocks, V.C.) related to the eventual March 5, 2012 dismissal), legal analysts clearly did not anticipate that
eventual outcome, given their reaction to the initial ruling.
the standard of waste may have been lowered by the courts in this case (Cooch, 2011). Either way, given the prior tendency of the courts not to interfere in matters related to executive pay, particularly under the doctrine of corporate waste, the decision by the Delaware Chancery Court not to dismiss the waste claim related to the executive compensation package for departing CEO Prince was viewed by the legal community as largely unexpected (see, for example, Biles and Davis, 2009 and Jones, 2011). Thus, it offers a natural experiment for our study.

The State of Delaware is the leading choice regarding firms’ state of incorporation12 because of its nationally recognized corporation law, its well-developed and well-known case law that reduces uncertainty for businesses, a political economy that places a high priority on issues of corporate law, and a specialized Chancery Court for resolving corporate legal disputes (Daines, 2001; Black, 2007). As a result of Delaware’s success and dominance in resolving corporate legal disputes, its judiciary decisions often influence those in other state jurisdictions. The scope of Delaware corporate law is extensive, and as a result, it is widely accepted as a standard (Black, 2007) followed by courts in other states (see, e.g., Cohn, 2009; Holland, 2009). Gilson (2001) states a “…Because in the United States a corporation's internal affairs (including especially its corporate governance) is governed by its state of incorporation without regard to its principal place of business, a U.S. corporation can choose the state corporate law that governs its affairs by choosing its state of incorporation. The aggregated choices of a majority of publicly traded U.S. corporations have resulted in a convergence on the Delaware General Corporation Law as a de facto national corporate law.”

Because of the national influence of Delaware courts, the Citigroup ruling raises the possibility of more frequent litigation related to executive pay. Cooch (2011) indicates that many executives lost their jobs and were the recipients of severance packages as a result of the financial crisis, suggesting the opportunity for shareholders of other firms to file similar suits as a result of the Citigroup case. In addition, many legal advisors began to suggest clients exercise caution in their setting of executive pay

12 Over 50% of all publicly-traded firms in the U.S. have the state of Delaware as their legal home, with the state of second choice representing fewer than 5% of public firms (Bebchuk and Cohen, 2003; Daines, 2001).
going forward. For example, in addition to the advice provided by Perkins Coie referenced at the beginning of our study, another law firm, Duane Morris, states, “the Court gave new vitality to the doctrine of corporate waste, which may engender additional derivative actions, particularly in light of the current climate of public scrutiny over the size of executive compensation.”

2.2 Research question

There is considerable debate regarding whether executive compensation contracts are set in such a way as to maximize shareholder wealth or whether they promote executive rent extraction. Proponents of optimal contracting theory argue that executive compensation contracts are negotiated in ways that maximize shareholder value, given the costs associated with those contracts (Core, Guay, and Larcker, 2003 offer a review of the literature). Others, however, argue that this is not the case, and that those contracts promote the extraction of rents by executives (see, e.g., Bebchuk and Fried, 2004).

There are several factors that can work in favor of shareholder interests, offering protection to investors from rent extraction by executives. First, the company’s board of directors might be structured so as to eliminate the possibility of rent extraction. Indeed, Core et al. (1999) find that the proportion of CEO pay not explained by standard economic determinants is related to poor corporate governance and poor future performance. However, boards have several functions in addition to setting executive pay, and some of them (e.g., strategic oversight) benefit from the presence of insiders on the board despite the possibility that such a makeup will result in contracts that allow for some degree of rent extraction.

Second, laws and regulations may be written to reduce the possibility of rent extraction by corporate insiders. Examples include the compensation restrictions associated with the receipt of bailout funds under TARP. However, Kim (2010) finds a negative stock price reaction to announcements of those restrictions, with that reaction being more negative for larger, better-performing firms, inconsistent with shareholder support of such regulation.

Third, shareholders may involve themselves in the pay setting process. Evidence regarding shareholder enthusiasm for say-on-pay is mixed. Larcker et al. (2011) find a negative stock price reaction for companies with high excess compensation, on days when it appeared that say-on-pay would be included in Dodd-Frank. But, Cai and Walkling (2011) find a positive stock price reaction to the passage of “say-on-pay” legislation for companies with high CEO compensation, low pay-to-performance sensitivity, and more responsiveness to shareholder pressure. However, shareholders might alternatively involve themselves in matters related to executive pay by litigating those issues through the courts. Our study sheds light on whether shareholders value the ability to influence pay through such an avenue. Little work has been done in a U.S. setting to examine this possibility. One notable exception is Bebchuk, Cohen, and Wang (2010) that find a positive stock price reaction to a ruling by the Delaware Chancery Court approving the legality of shareholder-adopted bylaws that weaken the antitakeover force of a staggered board, and a negative reaction to the subsequent decision by the Delaware Supreme Court to overturn that Chancery Court ruling. Thus, the potential benefit of the legal system as an alternative governance mechanism, particularly with respect to compensation, remains an open question.

We analyze the market reaction to the court’s non-dismissal of the waste claim and use the direction of the reaction to inform us about how shareholders value potential court intervention in matters of executive compensation. If shareholders perceive potential court intervention to be beneficial, we expect a positive reaction to the announcement of the Delaware court ruling. Alternatively, a negative reaction is consistent with shareholders perceiving potential intervention as net costly, either because pay packages are not excessive or because the costs of intervention (i.e., costly shareholder litigation or intervention resulting in pay packages that are even more sub-optimal) are greater than any potential benefits.

In addition, we test whether cross-sectional reactions to the ruling can be explained by the likelihood of future court intervention in pay-related matters. We rely on the notion that firms with greater excess CEO pay are more likely subjects of scrutiny in the courts. If shareholders perceive a net benefit
from court intervention in the pay-setting process, we expect to find a positive relation between the announcement returns and excess pay. Alternatively, if shareholders do not perceive a net benefit from court intervention in the pay-setting process, we expect that relation to be negative.

While our main interest is in the failure to dismiss the corporate waste claim, the court also announced that it would dismiss a claim that Citigroup’s directors breached their fiduciary duty by failing to adequately monitor and disclose exposure to subprime mortgages. It is possible that shareholders’ reactions reflect concerns regarding their inability to obtain recourse through the courts regarding breach of fiduciary duty based on this ruling. While this concurrent ruling is not likely to have come as a surprise to shareholders (three subprime mortgage and credit–crisis shareholder derivative lawsuits had been granted motions to dismiss within the prior five months), we address this possibility in robustness tests.

3. Research Design

3.1 Sample and data

Our sample begins with all firms on the ExecuComp database in 2009. We exclude from the sample all banks (2-digit SIC 60 and 61, and 3-digit SIC 671), including Citigroup, and any other firms receiving funds under the Troubled Asset Relief Program (TARP). This period was a volatile time for banks and, during the week of the Citibank ruling, Federal Reserve Chairman Ben Bernanke spoke before the House Financial Services Committee dismissing concerns that Citigroup or other large banks would be nationalized and announcing that the 19 largest banks would undergo stress tests. Excluding these firms mitigates the influence on our results of concurrent events affecting banks, although it may potentially weaken the power of our tests; the ruling may have been particularly salient for banks given that it was made against Citigroup.

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14 We obtain this information from the Treasury Department (www.financialstability.gov) as of November 4, 2009.
We obtain financial statement data for these firms from Compustat, stock return data from CRSP, and executive compensation data from ExecuComp. Our final sample for which we can obtain abnormal returns around our event window contains 1,695 firms.

3.2 Methodology

We first examine the overall stock market reaction to the Delaware court ruling on February 24, 2009. To determine the appropriate event window, we looked for the timing of news arrival to the market. The court ruling was released at 3:05pm EST on February 24, 2009. The first reports of the ruling that we find are on law-specialized blogs posted on February 24 and 25, 200915 and on newswires on February 26, 2009.16 Therefore, we test whether the three-day cumulative abnormal returns computed using the abnormal returns from February 24 to February 26 differ from zero. We compute abnormal returns using the market model and value-weighted returns without dividends for market returns. Exclusion of dividends ensures that the change in market returns is due to the event we are studying and not to other concurrent corporate events, such as distribution of dividends. We estimate the model for 255 days prior to Day -46 (where February 24, 2009 is Day 0).17 We require at least ten days of returns in our estimation window.

To examine whether the reaction to the ruling is related to the likelihood of future court intervention in pay-related matters, we estimate the following cross-sectional model.


17 The results are robust to using value-weighted returns with dividends, equal-weighted returns with and without dividends, three-day raw returns, and three-day size-adjusted returns, as well as to estimating the market model in the prior year (for 255 days ending on Day -255) to avoid the volatility associated with the financial crisis of 2008.
\[ \text{CAR}_j = \beta_0 + \beta_1 \text{EXCESSPAY}_j + \beta_2 \text{GINDEX}_j + \beta_3 \text{DEL}_j + \beta_4 \text{LNASSETS}_j + \beta_5 \text{BTM}_j \\
+ \beta_6 \text{MOMENTUM}_j + \beta_i \text{IND}_j + \epsilon_j, \]

(1)

Where:

- \text{CAR}_j = \text{cumulative 3-day abnormal returns for the February 24 announcement for firm j.}
- \text{EXCESSPAY}_j = \text{proxy for excess CEO pay based on the methodology in Cai and Walkling (2011) for firm j.}
- \text{GINDEX}_j = \text{GINDEX, based on Gompers, Ishii and Mettrick (2003), for firm j.}
- \text{DEL}_j = 1 \text{ if firm j is incorporated in Delaware, } 0 \text{ otherwise.}
- \text{LNASSETS}_j = \text{natural log of total assets for firm j at the end of fiscal year 2008.}
- \text{BTM}_j = \text{book value of equity scaled by market value of equity for firm j at the end of fiscal year 2008.}
- \text{MOMENTUM}_j = \text{cumulative 6-month returns ending January 30, 2009 for firm j.}
- \text{FINSERV}_j = 1 \text{ if firm j is belongs to the financial services industry (Fama-French 12 industry classification), zero otherwise.}
- \text{IND}_j = \text{indicator variable for industry, based on Fama-French 12 industry classification for firm j.}

We compute standard errors that are cluster-adjusted by three-digit SIC code to address potential cross-correlation among residuals, as announcement returns may be correlated among firms within the same industry.

Our primary variable of interest is a measure of excess pay (EXCESSPAY). We use this variable as a proxy for the likelihood of court intervention in executive pay matters. If shareholders perceive the benefits of court intervention in matters related to pay are greater than any associated costs, we expect that shareholders of firms whose CEO has greater excess pay will respond more favorably to this announcement. Alternatively, if shareholders perceive the benefits of such court intervention are less than the associated costs, we expect that shareholders of firms whose CEO has greater excess pay will respond less favorably to this announcement. We use ExecuComp data to calculate excess pay using the methodology in Cai and Walking (2011). Cai and Walking (2011) measure excess pay as the residual pay from a model that estimates CEO compensation (natural logarithm of total compensation) on average three-year stock returns, annual ROA, the log of the lagged market value of equity, lagged book-to-market ratio, leverage, and industry (Fama and French (1997) 12 groups) fixed effects using all
ExecuComp firms with available data for the year. Since our measure of excess pay is pay that is not explained by economic determinants, it may capture what shareholders perceive to be corporate waste.

To allow for the possibility that a firm’s governance structure captures the likelihood of court intervention, we include the variable GINDEX as a measure of shareholder rights. We compute GINDEX using data from RiskMetrics and following the procedure on Appendix A of Gompers, Ishii and Metrick (2003). If shareholders of firms with weaker rights welcome court intervention in helping to regulate executive pay, we expect shareholders of those firms to react positively to this announcement. GINDEX captures the lack of stronger shareholders’ rights as the sum of 17 provisions that are intended to delay hostile takeover bidders, limit shareholder-voting rights, or provide anti-takeover provisions. A larger value for GINDEX reflects weaker shareholders’ rights and, therefore, worse governance.

We include several control variables. First, we include an indicator variable to capture whether the firm is incorporated in Delaware. Although Delaware may be a defacto national court, it can be the case that the shareholder reaction for Delaware firms is different than for firms incorporated elsewhere. In addition, we include variables that have been documented to be associated with abnormal returns in prior research (see, for example, Larcker et al., 2011): firm size (natural log of assets), growth (book value of equity scaled by market value of equity), and stock price momentum (stock returns for the six months prior to the announcement month).

3.3 Descriptive statistics

Table 1 provides descriptive statistics for our sample firms. Mean (median) 3-day abnormal returns around the February 24, 2009 date are -1.5% (-1.7%), both significant at p < 0.01, suggesting that, on average, shareholders react negatively to the ruling. Those abnormal returns are positive for only

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18 For analyses using GINDEX, our sample size is smaller because we can obtain GINDEX for only 1,357 firms.
19 Because of potential concerns with event date clustering, we also examine the market reaction using a portfolio approach where firm and market returns are aggregated by date (Schipper and Thompson, 1983). We test whether returns during the 3-day event window are different from the market over the period (379 trading days) February 25, 2008 – August 24, 2009. We find (in untabulated results) that the returns in the 3-day event window are negative,
37% of sample firms. The mean (median) excess pay is positive (0.036 and 0.067, respectively), suggesting that CEOs are on average receiving greater pay in 2008 than predicted by economic determinants. The mean (median) GINDEX score is 7.378 (7.000) out of a possible score of 17. Fifty-nine percent of firms are incorporated in the state of Delaware. Our sample is skewed towards large firms, as sample firms have mean (median) assets of $9.34 billion ($1.8 billion). Sample firms have a mean (median) book-to-market ratio of 0.765 (0.619), and have experienced mean (median) stock price performance of -30.3% (-31.7%) over the six month period August 2008 – January 2009.

4. Results

4.1 Multivariate Analysis

Table 2 presents Pearson correlations between our measure of abnormal returns and the independent variables. CARs are negatively related to the likelihood of intervention, as captured by EXCESSPAY, although this correlation is not significant at conventional levels. In addition, CARs are significantly correlated with our control variables – positively with DEL, LNASSETS, and BTM, and negatively with GINDEX and MOMENTUM (all significant at p < 0.01 or p < 0.05). These correlations reinforce their importance as control variables.

Table 3 Column (1) presents results from estimating Equation (1). The relation between CARs and EXCESSPAY is negative (-0.005) and significant (p < 0.05), consistent with shareholders reacting more negatively when the likelihood of court intervention is greater. The relation between CARs and GINDEX is negative and significant at (p < 0.05), suggesting that even shareholders of firms with weaker rights do not favor court intervention. Finally, firms incorporated in Delaware experience more positive abnormal returns around the announcement (coefficient on DEL is positive and significant at p < 0.10), although not significant at conventional levels. These portfolio tests are inherently low powered, yet that the returns are negative provides some support that econometric properties of event clustering are not driving our results.
while firms with worse performance in the six months prior to the announcement respond negatively (coefficient on MOMENTUM is negative and significant at \( p < 0.05 \)).

Overall, the results suggest that shareholder reaction to the non-dismissal of the corporate waste claim as it relates to executive compensation is more negative in firms with higher likelihood of intervention (as proxied by excess pay), consistent with these firms perceiving court intervention in the compensation pay process as net costly.

We expand on the analysis in Table 3 column (1) to address concerns of the concurrent announcement and to further explore the relation between our proxies for the likelihood of court intervention and the announcement returns. These analyses are reported separately to demonstrate the stability of the main results.

One concern of our setting is that in addition to the non-dismissal of the corporate waste claim, the breach of fiduciary duty claim was concurrently dismissed. Although that concurrent announcement was likely expected by the market, as three similar announcements had been made in the prior five months, including one the week before, it is possible that our findings on EXCESSPAY might somehow be capturing shareholders’ reaction to the dismissal of the fiduciary duty claim. To address this concern, we estimate Equation (1) including an additional control as a proxy for shareholders’ reaction to the dismissal of the fiduciary duty claim. Specifically, we add as a control variable an estimate of the expected shareholder reaction to the dismissal of the fiduciary duty claim based on shareholders’ reaction to the dismissal of the fiduciary duty claim in the case of Merrill Lynch, occurring just a week before the Citigroup ruling.\(^{20}\) Intuitively, expected CAR on February 24\(^{th}\) proxies for shareholders’ reaction to the dismissal of the fiduciary claim in the Citigroup case, allowing the remaining CAR to capture shareholders’ reaction to the non-dismissal of the waste claim. Results from this estimation are included in Column (2). Results on our variables of interest are consistent with those in Column (1), providing

\(^{20}\) We estimate a regression of abnormal February 24 returns on abnormal February 17 returns and an intercept using all firms. Then we use the resulting coefficients to compute an expected return for February 24 for each firm. Using actual February 17 returns as a control, instead of the expected February 24 return, yields similar results.
additional assurance that our main results are indeed driven by shareholders’ reaction to the waste claim. All in all, these results seem more consistent with our results capturing shareholders’ reaction to the failure to dismiss the corporate waste claim rather than to the dismissal of the fiduciary claim.

Second, shareholders may not consider greater excess pay alone as indicative of a compensation-setting system that requires intervention; but intervention may be perceived as more beneficial in a setting where firm performance does not justify the pay package. We examine this possibility. We measure poor performance (POORPERF) as cumulative market-adjusted returns for 2008 multiplied by negative one, so that larger values represent worse performance. We measure them over the prior fiscal year to align with the measurement of excess pay. If shareholders perceive court intervention as net beneficial to solve excess pay matters, we expect that it is in firms with greater excess pay and poor performance that shareholders react more positively. To allow for the possibility that the relation between GINDEX and returns may differ for firms with poor performance, we also include the interaction of GINDEX * POORPERF: shareholders’ willingness for court intervention may be more likely in poorly governed firms that also exhibit recent poor performance. We find (in Column 3) that the relation between CARs and the interaction between EXCESSPAY and POORPERF is positive (0.014) and significant (p < 0.05). While shareholders of firms with higher excess pay react negatively to court intervention in the pay setting process (the coefficient on EXCESSPAY remains negative and marginally significant at p < 0.10 using a one-tailed test), shareholders of poorly-performing firms with higher excess pay react positively. These findings are consistent with concerns about excess pay concentrated in firms with poor performance, and shareholders for these firms perceiving possible court intervention as net beneficial. While the coefficient on GINDEX remains negative, the coefficient on GINDEX*POORPERF is not significant at conventional levels. The variable POORPERF is positively related to the announcement period abnormal returns (p < 0.05), suggesting that the worse the stock price performance relative to the
market during the year prior to the ruling, the more favorably shareholders view the ruling. MOMENTUM is no longer significant, likely as a result of the correlation between these two variables.  

4.3 Robustness Tests

We perform several tests to assess the robustness of our results (results not tabulated). First, we test whether our results are affected by cross-sectional correlation that may arise from all firms being affected by the same event. We adopt the estimation procedure proposed by Sefcik and Thompson (1986), which accounts for cross-sectional correlation and heteroskedasticity of the residuals. When we estimate the regressions in Table 3 using this procedure, our conclusions are unchanged.

Second, measuring excess pay is imprecise, and as a result, our proxy for excess pay may contain noise that would interfere with our ability to find a relation between it and announcement returns. Although we find a relation, suggesting that noise is not of significant concern, we consider alternative measures of pay in our Table 3 regressions. Specifically, we use (1) the estimation of excess pay according to Larcker et al. (2011), where excess pay is calculated as the difference between CEO compensation and the median compensation of a set of peer firms in the same industry and of similar size as that of the firm, (2) the estimation according to Core, Guay, and Larcker (2008), where excess pay is the residual pay from an expected CEO compensation model that controls for economic determinants such as CEO tenure, firm size, book-to-market, stock return, accounting return, whether the firm belongs to the S&P500, and industry controls, and (3) CEO total pay. Replacing our measure of excess pay in Column (3) with each of these alternative measures leads to similar results, though some coefficients are significant only using one-tailed tests.

21 Our conclusions are unchanged if MOMENTUM is excluded from these analyses.
22 The Sefcik and Thompson (1986) methodology involves several steps. First, we create portfolios for each firm characteristic following the weights structure specified in Sefcik and Thompson for each firm. Then, we compute daily returns (excluding dividends) from February 25, 2008 to August 24, 2009 for each firm-characteristic portfolio. Next, we estimate a regression of the daily portfolio returns on the value-weighted market return (excluding dividends) and an event indicator variable for the period February 24 to 26, 2009. In this specification, the coefficient estimate on the event variable is unbiased, and the standard errors fully account for the cross-sectional disturbance heteroskedasticity and interdependence.
Third, as mentioned previously, the court made a second announcement related to Citigroup on February 24th. Although our results in Table 3 remain unchanged after controlling for that concurrent announcement, we do additional tests to ensure that dismissing the breach of fiduciary duty claims is not driving our results. If our findings were driven by the dismissal announcement, we might expect to find the same results if we performed our analyses on other similar dismissals. We estimate equation (1) on the announcement returns for the dismissal of two derivative lawsuits on breach of fiduciary duty claims that occurred just before the Citigroup’s court ruling. A Merrill Lynch breach of fiduciary duty lawsuit was dismissed on February 17, 2009, and a Countrywide California breach of fiduciary duty lawsuit was dismissed on December 11, 2008. We estimate the model in Table 3 Column (3) excluding Predicted CAR and using these returns as our dependent variables. Neither EXCESSPAY nor EXCESSPAY*POORPERF is related to either announcement returns, reinforcing that the relation we document with the Citigroup announcement is related to the corporate waste claim.

Fourth, we consider the possibility that concurrent announcements may be affecting our results. We first address the possibility that we may have missed a significant concurrent announcement for any particular sample firm, we identify the 40 most active stocks on the NYSE (top 20 percentage gainers and decliners) from the Wall Street Journal for each of our three event days. Of the 50 unique firms, 31 are in our sample; when we exclude them, our conclusions are unchanged. Second, we consider the effect that Federal Reserve Chairman Bernanke testimony before the House Financial Services Committee occurring that week may have had on our sample firms. As mentioned previously, we exclude banks and other TARP firms that would be most likely affected by the remarks from our sample. Therefore, to affect our findings, it must be the case that remarks caused reactions in non-banking firms with poor prior performance and greater excess pay. We first read the testimony and determine that there is no mention of “compensation” or “pay” in his remarks, suggesting such a relation is unlikely. In addition, we rule out the possibility that general Fed remarks might cause such a relation by estimating model (1) with five different sets of announcement returns corresponding to testimony by Bernanke. We start with July 15,
2008, when Bernanke made the same “Semiannual Monetary Policy Report to the Congress” as he had on February 24, and include the four other dates he made remarks in between. In no estimation do we find a significant relation between EXCESSPAY*POORPERF and announcement returns, suggesting that Fed remarks are unlikely to have affected our findings. Overall, based on these analyses, we do not believe that concurrent announcements are driving our results.

Fifth, in unreported analyses, we conduct our tests including banks and other TARP firms in the sample. If the Citigroup ruling was particularly salient for banks, we may observe different relations between announcement returns and excess pay for these firms. We estimate the regression in Table 3 column (3) but also allowing for the relations between returns and EXCESSPAY, POORPERF and EXCESSPAY*POORPERF to be different for banks and other TARP firms. We further include an indicator variable identifying TARP recipients (firms most likely affected by the Chairman’s testimony) to control for the stock price reaction to the testimony. We find that our conclusions are unchanged and that the relation between EXCESSPAY*POORPERF is no different for these excluded firms.

Finally, we consider alternative measures of governance, instead of GINDEX, in our Table 3 Column (3) regression. In particular, we use the EINDEX from Bebchuk, Cohen, and Ferrell (2009). While the coefficient on this alternative governance measure remains negative, it is no longer significant at conventional levels. Interestingly, we find a positive coefficient on EINDEX*POORPERF, suggesting that shareholders of entrenched firms with poor performance would welcome court intervention.

5. Implications of the Citigroup Ruling

The economic consequences of the ruling are difficult to measure. On the one hand, we might expect to see an increase in derivative suits including corporate waste claims subsequent to the Citigroup

\[23\text{ Estimating these regressions using either 2007 or 2008 excess pay for the 2008 event dates yield the same conclusions.}\]

\[24\text{Data on EINDEX is obtained from Lucian Bebchuk’s website, accessed on July 18, 2011: http://www.law.harvard.edu/faculty/bebchuk/data.shtml. Bebchuk et al. (2009) define the EINDEX as an entrenchment index that is calculated based on six governance provisions that matter the most out from the provisions included in GINDEX.}\]
ruling. As an indication of the potential precedent set by this case, we search derivative suits that include corporate waste claims regarding executive compensation from 2006-2012 using BloombergLaw.\textsuperscript{25} We find that the average number of suits per year from 2010-2012 (5.0) is greater than before the Citigroup ruling (3.3 from 2006-2008), although the difference is not statistically significant, and that all the suits from 2009 onward reference the Citigroup case, suggesting that it had some influence on those suits. However, while consistent with the Citigroup ruling opening the door for future litigation, the increase in cases may be due to other factors independent of the ruling that we are unable to capture.

On the other hand, the number of lawsuits may be lower than it otherwise would be because of the Citigroup ruling; facing a potential increase in the likelihood of litigation, companies may take actions to avoid future lawsuits. Indeed, as a result of the ruling, law firms have offered substantial advice to firms to reduce their risk of similar suits related to compensation, urging boards and compensation committees to “have a heightened sensitivity to granting what may be perceived as excessive compensation.”\textsuperscript{26} If firms heed such advice, then we would not expect to see an increase in lawsuits filed, but we would expect to see changes in pay practices for those firms most likely affected. Thus, we consider the implications of shareholders’ responses to the court ruling by examining whether those responses are related to subsequent changes in CEO pay.

We expect firms whose shareholders welcome court intervention and are likely to initiate it to be more likely to reduce CEO pay, or have smaller pay increases, in an effort to decrease potential costly court intervention. To examine whether firms changed CEO compensation in response to the court ruling, we follow the methodology in Core et al. (2008) and estimate the change in the percent excess pay after the court ruling as a function of variables predicted to explain its cross-sectional variation. Using the

\textsuperscript{25} We first search for litigation cases filed with the district of Delaware using the following keywords: “derivative action” or “derivative litigation” or “derivative suit” and “waste claim.” We then read all the claims and dropped the ones that were not related to excess compensation claims. We also excluded say-on-pay lawsuits, mostly filed in the post-Citigroup period, but included stock options backdating lawsuits that were filled in the pre-Citigroup period to avoid overstating the impact of the Citigroup case.

change in excess pay as our dependent variable helps mitigate concerns of correlated omitted variables.

Specifically, we estimate:

\[
%CHG\_EXCESSPAY2009\ (2010)\_j = \beta_0 + \beta_1 %EXCESSPAY2008\_j + \beta_2 POSCAR\_j + \\
\beta_3 POSCAR\_j \times EXCESSPAY\_j + \beta_4 EXCESSPAY\_j + \beta_5 POSCAR\_j \times GINDEX\_j + \beta_6 GINDEX\_j + \\
\beta_7 NEGCAR\_j + \beta_8 NEGCAR\_j \times EXCESSPAY\_j + \beta_9 NEGCAR\_j \times GINDEX\_j + \epsilon_j \quad (2)
\]

Where:

%CHG\_EXCESSPAY2009\ (2010)\_j = change in percent excess CEO total compensation (%EXCESSPAY) from 2008 to 2009 (2008 to 2010) for firm j where
%EXCESSPAY is computed as ln (CEO total compensation) – ln (predicted CEO total compensation) and predicted compensation is derived from the Cai and Walkling (2011) model of pay.

POSCAR\_j = cumulative 3-day abnormal returns for the February 24 announcement for firm j if positive, zero otherwise.

EXCESSPAY\_j = proxy for excess CEO pay in 2008 based on the methodology in Cai and Walkling (2011) for firm j.

GINDEX\_j = GINDEX for firm j.

NEGCAR\_j = cumulative 3-day abnormal returns for the February 24 announcement for firm j if negative, zero otherwise.

We use positive announcement returns (POSCAR > 0) to proxy for shareholder approval of court intervention. We expect the degree of response to the court ruling to be greater for firms that have larger excess pay in 2008 (EXCESSPAY), if the likelihood of intervention is greater in those firms. Thus, we predict the coefficient on POSCAR*EXCESSPAY to be negative. Although we did not find a significant reaction for firms with poor performance and weak shareholder rights in Table 3, we still allow for the possibility that those firms respond to the ruling by decreasing excess pay. Following Core et al. (2008), we include the percent of excess pay in 2008 (%EXCESSPAY2008) to control for mean reversion in excess pay.²⁷ We also include the main effects of POSCAR, GINDEX and EXCESSPAY. Finally, we include NEGCAR and related interactions, and expect a nonnegative relation to future pay changes.

²⁷ Not surprisingly, %EXCESSPAY and EXCESSPAY are highly correlated. If we exclude %EXCESSPAY and allow EXCESSPAY to capture mean reversion, the results are stronger and our conclusions from Table 4 are unchanged.
The results are reported in Table 4. The dependent variable is the percent change in excess pay from 2008 to 2010 in column (1) and from 2008 to 2009 in column (2). As the ruling occurred in February 2009, examining changes through 2010 allow for the possibility that 2009 pay was established prior to the ruling and could not be altered. We find that firms with excess pay and whose shareholders welcome court intervention decrease their pay levels in the following period (coefficient on POSCAR*EXCESSPAY is negative and significant at p < 0.05). In terms of economic impact, for firms that react positively to the ruling (POSCAR>0), in 2010 (2009) the median firm in terms of excess pay decreases excess pay by 3% (12%) relative to 2008 levels whereas the 75th percentile firm decreases excess pay by 6% (24%).28 Interestingly, the main effect of POSCAR is not statistically negative while the main effect of EXCESSPAY is statistically positive, suggesting that although shareholders may welcome court intervention, it is only firms that also have high excess pay that respond. We also find no evidence that poorly governed firms whose shareholders welcome court intervention incrementally change their level of CEO pay (coefficient on POSCAR*GINDEX is not significant at conventional levels). Finally, as expected, we find no relation between pay and NEGCAR or its interactions.

We conduct several robustness tests (results untabulated). First, we estimate the regression excluding firms that changed CEOs in 2009 or 2010 (or 2009 for Column (2)). While new CEOs could be hired at lower or higher rates of pay, we drop these firms and find that our results are not sensitive to their inclusion. Second, we estimate our dependent variable (the percent changes in excess pay) using different measures of pay. We estimate excess pay computed with the Larcker et al. (2011) method and with the Core et al. (2008) method. We also use the level of total CEO compensation in 2010 (or 2009 for Column (2)) as our dependent variable and include total compensation in 2008 to capture the change in pay and variables to control for the economic determinants of pay (size, book to market value, return on assets, and stock returns). Our conclusions are unchanged, although in a few cases our results are

28 This is obtained by evaluating all variables at their sample median, except POSCAR and POSCAR*EXCESSPAY which are evaluated at the median and 75th percentile of firms with positive announcement returns.
significant using a one-tailed test. Finally, we estimate the model using the log of severance payments in 2008, instead of EXCESSPAY, as our proxy to capture firms in which intervention may be more likely. Again, our conclusions are unchanged although the coefficient on POSCAR*EXCESSPAY in Column 1 is significant only using a one-tailed test. Overall, our conclusion that firms with high excess pay, in which shareholders are more likely to welcome court intervention, are reducing excess pay more is generally supported by these estimations.\textsuperscript{29}

The results in this section indicate that firms whose shareholders would welcome intervention and that have the greatest likelihood of intervention show lower increases in pay levels in 2009 and 2010. This evidence suggests that the Citigroup court ruling led some firms to exercise caution in their setting of executive pay in order to avoid future costly litigation.

6. Conclusion

Using an unexpected ruling from the Delaware Court of Chancery as a natural experiment, we examine whether shareholders perceive potential court intervention in setting executive pay to be a net benefit. Executive pay has been under scrutiny lately, with compensation critics asserting that the pay setting process is broken and that corporate governance cannot manage it. While courts have been reluctant to interfere with the management of the firm, particularly through a corporate waste claim in the pay process, some may view court intervention as helpful in reining in excess pay.

The ruling, announced on February 24, 2009 by the Court of Chancery in the \textit{Citigroup, Inc. Shareholder Derivative Litigation}, denied the motion to dismiss the claim of corporate waste with regard to the departing CEO’s pay package. This denial was viewed by the legal community as largely unexpected and as possibly opening the door for court intervention in setting executive pay. We examine

\textsuperscript{29} We also consider whether “say on pay” votes are a correlated omitted variable. In 2009, these votes were voluntary and as a result, only 56 of the sample firms held a vote. We include a dummy variable equal to one if the proportion of votes FOR the compensation packages is less than 50% (or 75% in a separate regression) and zero for all other votes or for firms without votes. The coefficient on POSCAR*EXCESSPAY remains negative and significant at \( p < 0.05 \).
the shareholders’ reactions of 1,695 firms from the ExecuComp database to this announcement and find that shareholders, on average, responded negatively. In light of the new “say on pay” voting that occurs as part of the Dodd-Frank Act, it is possible that shareholders prefer to express their concern through these votes, albeit non-binding, rather than incurring the costly legal fees (Ferris et al., 2007). Citigroup shareholders recently voted against (55%) approving executive pay (Kapner, Lublin, and Sidel, 2012).

In cross-sectional analyses, we find that while the reaction is more negative for firms where the CEO has greater excess pay, it is more positive for those whose greater excess pay is accompanied by poor performance. We interpret this as evidence that shareholders perceive court intervention as net costly and may be generally unwelcome in firms for which the likelihood of intervention is greater; but, in firms in which excess pay is accompanied by poor performance, shareholders seem to perceive court intervention to be beneficial. Our findings are robust to several alternative specifications and controlling for concurrent events.

Finally, we examine whether firms with high excess pay and whose shareholders react positively to the ruling show subsequently lower excess CEO pay in an effort to decrease potential costly court intervention. We find a differential decrease in 2009 and 2010 that is economically significant. Firms for which their shareholders are relatively more likely to initiate claims – those at the top quartile for excess pay and whose shareholders react positively to the court ruling – decrease the level of excess CEO pay more than double the decrease in firms at the median level of excess pay.

Collectively, our analyses yield the following story. On average, shareholders react negatively to the February 24th ruling, and that reaction is more negative in firms with larger excess pay. But shareholders respond positively for firms with greater excess pay accompanied by poor performance. That we see no relation between our proxies and returns around other court announcements reaffirms the information content of the February 24th announcement. Further, we document that firms take action to forestall potential costly court intervention. Using positive announcement returns and high excess pay as a proxy for the greater likelihood that shareholders might seek court remedies, we find that these firms have
smaller increases in subsequent pay relative to other firms. This suggests that while shareholders may have mixed reactions to court intervention, firms prefer to address compensation matters to avoid potential costly and distracting litigation.

While we focus on a single event, potentially limiting the generalizability of our findings, single event studies are not without precedent (e.g., Becker et al., 2012; Black and Kim, 2012; Hau, Massa, and Peress, 2010). Both the relation between the market reaction to the court ruling and excess pay, and the change in subsequent executive pay packages suggest that the Citigroup court ruling was not inconsequential. And while there is extensive research on the influence of corporate governance on CEO pay, and to a lesser extent, research on the influence of regulation, there has been little done to examine the impact that court intervention might have. Our study is among the first to examine whether such intervention would be welcome by shareholders.
References


Table 1
Descriptive statistics of sample firms

This table provides descriptive statistics for the sample firms. The variables are defined as follows. CAR is the cumulative three-day abnormal returns, beginning on February 24, 2009, the date of the court ruling. EXCESSPAY is excess CEO pay based on the methodology in Cai and Walkling (2011). GINDEX is the GIM index calculated as in Gompers, Ishii and Metrick (2003). DEL is an indicator variable equal to one if the firm is incorporated in the state of Delaware, zero otherwise. The variable Assets is the total book value of assets at fiscal year-end 2008 in millions of dollars. BTM is the book value of equity scaled by market value of equity at fiscal year-end 2008. MOMENTUM is the cumulative six months returns ending January 30, 2009.

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>Median</th>
<th>Std Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAR</td>
<td>1,695</td>
<td>-0.015</td>
<td>-0.017</td>
<td>0.076</td>
</tr>
<tr>
<td>EXCESSPAY</td>
<td>1,577</td>
<td>0.036</td>
<td>0.067</td>
<td>0.691</td>
</tr>
<tr>
<td>GINDEX</td>
<td>1,357</td>
<td>7.378</td>
<td>7.000</td>
<td>1.507</td>
</tr>
<tr>
<td>DEL</td>
<td>1,695</td>
<td>0.594</td>
<td>1.000</td>
<td>0.491</td>
</tr>
<tr>
<td>Assets ($ millions)</td>
<td>1,695</td>
<td>9,389.6</td>
<td>1,815.8</td>
<td>38,792.8</td>
</tr>
<tr>
<td>BTM</td>
<td>1,695</td>
<td>0.765</td>
<td>0.619</td>
<td>1.163</td>
</tr>
<tr>
<td>MOMENTUM</td>
<td>1,673</td>
<td>-0.303</td>
<td>-0.317</td>
<td>0.254</td>
</tr>
</tbody>
</table>
This table presents Pearson correlations between our measure of abnormal returns and the independent variables. The variable LNASSETS is the natural log of firm’s total assets. All the remaining variables are defined in Table 1. Correlations with ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

<table>
<thead>
<tr>
<th></th>
<th>CAR</th>
<th>EXCERPAY</th>
<th>GINDEX</th>
<th>DEL</th>
<th>LNASSETS</th>
<th>BTM</th>
<th>MOMENTUM</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAR</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EXCERPAY</td>
<td>-0.035</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GINDEX</td>
<td>-0.080***</td>
<td>0.061**</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DEL</td>
<td>0.052**</td>
<td>0.101***</td>
<td>-0.111***</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LNASSETS</td>
<td>0.122***</td>
<td>0.059**</td>
<td>-0.057**</td>
<td>-0.026</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BTM</td>
<td>0.077***</td>
<td>-0.018</td>
<td>0.054**</td>
<td>-0.068***</td>
<td>-0.027</td>
<td>1.000</td>
<td></td>
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<tr>
<td>MOMENTUM</td>
<td>-0.147***</td>
<td>-0.042</td>
<td>-0.023</td>
<td>-0.035</td>
<td>-0.027</td>
<td>-0.164***</td>
<td>1.000</td>
</tr>
</tbody>
</table>
Table 3
OLS regressions of cumulative abnormal returns on excess pay and control variables for sample firms in 2009

This table reports the results of estimating the following cross sectional model:

\[ \text{CAR} = \beta_0 + \beta_1 \text{EXCESSPAY} + \beta_2 \text{GINDEX} + \beta_3 \text{DEL} + \beta_4 \text{LNASSETS} + \beta_5 \text{BTM} + \beta_6 \text{MOMENTUM} + \beta_i \text{IND} + \varepsilon. \]

IND is an indicator variable for industry based on the Fama-French 12 industry classification. All the remaining variables are defined in Table 1. Column 2 presents the results including Predicted CAR to control for the market reaction to the dismissal of the fiduciary duty claim. Predicted CAR is calculated as the predicted market reaction from regressing the three-day cumulative abnormal return to the Citigroup’s court ruling on February 24th on the abnormal three-day returns to the Merrill Lynch’s announcement on February 17th. Column 3 presents the results while allowing the coefficient on the variables EXCESSPAY and GINDEX to differ according to the firm’s performance (POORPERF). POORPERF is the cumulative 12-month market-adjusted returns ending December 31, 2008 multiplied by minus one. Samples sizes are smaller than those presented in Tables 1 and 2 because of missing independent variables. Standard errors are cluster-adjusted by three-digit SIC code. ***, **, and * denote significance at the 1%, 5%, and 10% (two-sided) levels, respectively.

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXCESSPAY</td>
<td>-0.005**</td>
<td>-0.005**</td>
<td>-0.003</td>
</tr>
<tr>
<td></td>
<td>(-1.97)</td>
<td>(-2.02)</td>
<td>(-1.45)</td>
</tr>
<tr>
<td>EXCESSPAY*POORPERF</td>
<td></td>
<td>0.014**</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(2.44)</td>
<td></td>
</tr>
<tr>
<td>GINDEX</td>
<td>-0.003**</td>
<td>-0.003**</td>
<td>-0.003**</td>
</tr>
<tr>
<td></td>
<td>(-2.06)</td>
<td>(-2.24)</td>
<td>(-2.12)</td>
</tr>
<tr>
<td>GINDEX*POORPERF</td>
<td></td>
<td></td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.43)</td>
</tr>
<tr>
<td>DEL</td>
<td>0.006*</td>
<td>0.007*</td>
<td>0.005</td>
</tr>
<tr>
<td></td>
<td>(1.66)</td>
<td>(1.79)</td>
<td>(1.43)</td>
</tr>
<tr>
<td>POORPERF</td>
<td></td>
<td></td>
<td>0.024**</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>(2.38)</td>
</tr>
<tr>
<td>LNASSETS</td>
<td>0.005***</td>
<td>0.005***</td>
<td>0.004***</td>
</tr>
<tr>
<td></td>
<td>(2.94)</td>
<td>(2.88)</td>
<td>(2.65)</td>
</tr>
<tr>
<td>BTM</td>
<td>0.001</td>
<td>0.000</td>
<td>-0.004</td>
</tr>
<tr>
<td></td>
<td>(0.36)</td>
<td>(0.06)</td>
<td>(-0.91)</td>
</tr>
<tr>
<td>MOMENTUM</td>
<td>-0.024**</td>
<td>-0.022**</td>
<td>0.003</td>
</tr>
<tr>
<td></td>
<td>(-2.13)</td>
<td>(-2.02)</td>
<td>(0.20)</td>
</tr>
<tr>
<td>Predicted CAR</td>
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<td>0.473**</td>
<td>0.487**</td>
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<tr>
<td></td>
<td></td>
<td>(2.46)</td>
<td>(2.48)</td>
</tr>
<tr>
<td>Observations</td>
<td>1,282</td>
<td>1,282</td>
<td>1,282</td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>0.0833</td>
<td>0.0931</td>
<td>0.1093</td>
</tr>
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</table>
Table 4
OLS regressions of future changes in excess pay on investor’s market reaction to the court ruling

This table reports the results of estimating the following model for each firm:

\[%\text{CHG\_EXCESSPAY}2009\, (2010) = \beta_0 + \beta_1%\text{EXCESSPAY}2008 + \beta_2\text{POSCAR} + \beta_3\text{POSCAR\_EXCESSPAY} + \beta_4\text{EXCESSPAY} + \beta_5\text{POSCAR\_GINDEX} + \beta_6\text{GINDEX} + \beta_7\text{NEGCAR} + \beta_8\text{NEGCAR\_EXCESSPAY} + \beta_9\text{NEGCAR\_GINDEX} + \beta_{10}\text{TARP} + \epsilon_j\%

%\text{CHG\_EXCESSPAY}2009 (2010) is the percent change in excess CEO total compensation (%EXCESSPAY) from 2008 to 2009 (2008 to 2010) for firm j, where %EXCESSPAY is computed as ln (CEO total compensation) – ln (predicted CEO total compensation) and predicted compensation is derived from the Cai and Walkling (2011) model of pay. POSCAR (NEGCAR) is equal to the cumulative three-day abnormal returns for the February 24 announcement if positive (negative), and zero otherwise. All the remaining variables are defined in Table 1.***, **, and * denote significance at the 1%, 5%, and 10% (two-sided) levels, respectively.

<table>
<thead>
<tr>
<th>Percentage Change</th>
<th>%CHG_EXCESSPAY2008</th>
<th>%CHG_EXCESSPAY2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>POSCAR</td>
<td>0.17</td>
<td>-2.05</td>
</tr>
<tr>
<td>POSCAR*EXCESSPAY</td>
<td>-1.73***</td>
<td>-1.61**</td>
</tr>
<tr>
<td>EXCESSPAY</td>
<td>0.18***</td>
<td>0.26***</td>
</tr>
<tr>
<td>POSCAR*GINDEX</td>
<td>0.19</td>
<td>0.48</td>
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<tr>
<td>GINDEX</td>
<td>0.00</td>
<td>0.00</td>
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<tr>
<td>NEGCAR</td>
<td>0.89</td>
<td>-0.85</td>
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<tr>
<td>NEGCAR*EXCESSPAY</td>
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<td>0.36</td>
</tr>
<tr>
<td>NEGCAR*GINDEX</td>
<td>-0.05</td>
<td>0.17</td>
</tr>
<tr>
<td>Observations</td>
<td>1,206</td>
<td>1,245</td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>0.3429</td>
<td>0.2853</td>
</tr>
</tbody>
</table>