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# Voluntary adoption of clawback provisions, corporate governance, and interlock effects

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A B S T R A C T

We examine the relationship between a company's governance structure and the early adoption of management compensation clawbacks. We construct an index of whether governance tends toward relative management entrenchment versus monitoring and find that ostensible management entrenchment makes a clawback provision less likely. Furthermore, we examine whether social networks by the compensation committee with other adopters (interlocks) affects the likelihood of adoption, potentially by providing information from other decision-makers evaluating adoption. We find that interlocks by directors on the compensation committee with other companies with clawbacks increase the probability of a clawback. In addition, not all clawbacks are the same. We find that companies with clawbacks that are patterned after SOX are most common and are associated with monitoring-oriented governance and interlocks. Dodd Frank did not yet exist, but we find that clawback policies that would be compliant with Dodd Frank or are otherwise innovative are not associated with our measure of governance.



## 1. Introduction

We examine the relationship between corporate governance and the early adoption of management compensation clawback provisions (clawbacks). Specifically, we examine whether the orientation of a governance structure toward monitoring versus management entrenchment is related to

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the adoption of a clawback. Furthermore, we examine whether social networks by the compensation committee with other adopters (interlocks) are related to the likelihood of adoption, potentially by providing information from other decision makers evaluating adoption. Combined, this framework considers both a company's exposure to information about clawback adoptions through interlocks and the degree to which a company's governance structure is likely to consider adoption of a clawback. We find that companies adopting clawbacks have more monitoring-oriented governance and more director interlocks than control companies.

In the wake of scandals and restatements, activist shareholders introduced proposals in 2004–2006 to clawback executive bonuses when those bonuses were paid based on errant financials. Generally, these proposals were defeated. In 2006, The Council of Institutional Investors recommended to the SEC that the Compensation Discussion and Analysis of the proxy statement include:[1]

> The company's policy for recapturing incentive pay following specific events such as a restatement in which the "performance" measures affecting a plan are adjusted (clawback provisions). If the company has no such policy, it should be required to state this fact and explain the reason;

The SEC agreed with the suggestion and altered Regulation S–K, which is the regulation that prescribes reporting requirements. Section 402 (b)(2) (viii) now states that a clawback is a material element of a registrant's compensation of named executive officers, hence should be disclosed. Some companies quickly developed provisions to recover bonuses. These company-level provisions are *incremental* to Sarbanes–Oxley (SOX section 304) which had earlier made clawbacks triggered by restatements a matter of law. This SOX provision is only to be applied by the Securities and Exchange Commission, not by companies or shareholders, and the SEC largely allows the provision to lay dormant. Thus, the 2006 disclosure provision of Reg S–K launched a period where some companies voluntarily adopted clawback provisions that can be used in the event of future restatements.[2]

That these company-level clawbacks are voluntary makes it perhaps surprising that any clawbacks were adopted, since recovery of wrongful bonuses has been argued to be, at best, a second order problem in designing management compensation (Dechow, 2006). This stream of literature views compensation design as protecting managers from downside reports and either encouraging managers to take on unpleasant tasks, like restructuring losses, or admitting that managers are able to lobby on their own behalf. However, other literature suggests that at least in the post-Sarbanes Oxley period when financial statements were restated, compensation committees eliminated bonuses for CEOs and CFOs, and CFOs were reassigned (Burks, 2010). This suggests more active monitoring on the part of compensation committees. We examine whether companies with more monitoring oriented governance were more likely to be the ones adopting clawback provisions, or were clawbacks easily adopted, potentially as window dressing, by companies with less monitoring oriented governance.

In addition, because these clawbacks are voluntary, they can vary in what gets included. For example, they can vary in whether misconduct is required to trigger the clawback or simply any restatement is a trigger; they can vary in whether only the "excess" bonus is targeted or the entire bonus; and they can vary in the extent of due process and deliberation before attempting recovery. We cluster these and other elements into styles that are similar to the elements in SOX, the Dodd-Frank Act, or a style different from either of these. The SOX provision already existed at the time of these adoptions,

[1] The SEC made a request for comment in early 2006 (Securities and Exchange Commission, 2006 (January 27)). More recently, two Acts have expanded the existence of clawbacks. First, The Emergency Economic Stabilization Act of 2008 includes a standard bonus recovery provision for all financial institutions that sell troubled assets to the Secretary of the Treasury. Second, the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank, signed July 21, 2010) requires public companies to have a clawback policy to respond to restatements, though the criteria for what will constitute an adequate policy has yet to be determined by the SEC.

[2] The term "clawback' has been used recently in a variety of settings. In this paper the term exclusively refers to the private arrangement where the company's management compensation plan specifies that after restatement of financial statements managers can be obliged to return bonuses that the company previously awarded.

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and the Dodd-Frank Act would be forthcoming several years later, but both of these styles reflect the broad political negotiations of a variety of stakeholders and neither style is likely to be optimal for any particular company and its circumstances. For novel decisions, like style of clawback, companies face uncertainty about the consequences of choices. The higher the uncertainty, the more likely a company will mimic an existing model (Lieberman and Asaba, 2006). SOX was the highest profile clawback policy extant, so we examine whether, on average, companies with monitoring oriented governance tend to view clawback design as being a problem with high uncertainty regarding consequences of choices by whether they select a SOX-style clawback.

Understanding the emergence of clawback provisions adds to our knowledge of how pay-for-actual-performance designs in compensation plans evolve. Recent literature argues that compensation committees make an effort to adjust for bonuses that were based on incorrect performance figures. For example, Burks (2010) demonstrates that compensation committees react to restatements. However, while the loss of a current bonus penalizes the executives, it does not necessarily settle up for the wrongful previous bonus. Additionally, Leone et al. (2006) show that compensation committees act conservatively *ex ante*. Using stock returns as a measure of news, bonuses increase by less when there are high stock returns than bonuses decrease when there are low stock returns. This conservative approach to bonuses reduces the chance of a board awarding a bonus that in retrospect turns out to be based on bad information. However, more visible than either of these examples, boards that want to be seen as performing a viable monitoring function may *ex ante* add a clawback provision to the management compensation plan.

Managers, analysts, investors, and auditors may react to the adoption of clawbacks. Dehaan et al. (2013) find a collection of effects that include a decline in the propensity to meet-or-beat earnings per share (EPS), higher earnings response coefficients (ERCs), a tightening of the dispersion of EPS forecasts, and higher salary compensation. Chan et al. (2012) similarly find higher ERCs, together with a reduced incidence of restatements and lower audit fees. Iskandar-Datta and Jia (2013) find a positive effect on stock prices, though no effect on managerial compensation. These findings suggest that, on average, clawbacks tend to affect the activities of managers, analysts, investors, and auditors. However, adopting a clawback provision is also consistent with other literature that recognizes the adoption of governance features is separable from the decision to implement the features. In fact, adoption can be strategically developed and disclosed to seemingly illustrate vigilance and oversight without imposing actual consequences on company leadership (Fiss and Zajac, 2006; Westphal and Zajac, 2001; Zajac and Westphal, 1995). Adoption enhances the appearance of legitimacy for company leadership without necessarily committing the company to implementation. As a result, different styles of clawbacks emerging in different governance regimes suggests that the incentivizing effect for managers is not uniform.

We compare 105 S&P 500 companies (adopting companies) that quickly adopted a clawback provision in the period 2006 through 2008 to the remaining 236 S&P 500 companies for which we have complete data (control companies). The 105 adopting companies have a higher level of monitoring oriented governance and more director interlocks by compensation committee members than the control companies. In addition, the adopting companies have fewer accruals and are larger, but we find little evidence that accounting conservatism or bonus materiality affects the adoption decision. Our work is comparable to Brown et al. (2011), who are also interested in the determinants of clawbacks. They include several features of governance and firm-specific activities like mergers and goodwill impairment, finding evidence that adoption of clawbacks is associated with goodwill impairment. We include a broader set of governance features that we summarize into a single variable, and we restrict our definition of clawbacks only to those that reference accounting or performance measures, which eliminates non-compete agreements.

The remainder of the paper is organized as follows. The next section reviews the institutional background that led to the emergence of clawback provisions in 2006, 2007 and 2008. The third section describes the literature background and hypothesis development. We next describe the sample and operational measures for variables. A description of results is followed by a summary.

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## 2. Background

Lockheed Martin Corporation amended their corporate governance guidelines to include a clawback policy as reported in the January 29, 2008, 8-K. The amendment states:

> *Clawback Policy:* On January 24, 2008, the Board of Directors amended Lockheed Martin Corporation's Corporate Governance Guidelines to include what is commonly referred to as a recoupment or "clawback" policy. If the Board of Directors determines that any elected officer's intentional misconduct, gross negligence or failure to report another's intentional misconduct or gross negligence:
>
> was a contributing factor to the Corporation having to restate any of its financial statements filed with the Securities and Exchange Commission; or
>
> constituted fraud, bribery or other illegal act (or contributed to another person's fraud, bribery or other illegal act) which adversely impacted the Corporation's financial position or reputation;
>
> Then, after consideration of all the facts and circumstances that the Board of Directors in its sole discretion considers relevant, the Board of Directors shall take such action as it deems to be in the best interests of the Corporation and necessary to remedy the misconduct and prevent its recurrence. The policy notes that, among other things, the Board of Directors may seek to recover or require reimbursement of incentive performance and equity awards made to the elected officer after January 1, 2008 under any plan providing for incentive compensation, equity compensation or performance-based compensation. Concurrently, the Board of Directors amended the Corporation's Management Incentive Compensation Plan ("MICP"), which is an annual incentive bonus plan, to incorporate similar language.

The proxy statement for 2008 follows up on this provision stating that "no award will be effective unless the NEO [Named Executive Officer] agrees to the restrictive covenants and the provision implementing the clawback policy." Amending the governance on January 24, 2008, together with an absence of prior references to clawbacks suggests the adoption was novel for the company. The trigger is the executive officer's misconduct that contributes to a restatement. The recoupment is not automatic for Lockheed Martin executives, but the board may pursue reimbursement after considering the facts and circumstances.

SOX might make it seem as though clawback provisions such as Lockheed Martin's are redundant. However, in cases like Neer v. Perlino (2005), courts interpret Section 304 to be applied only by the government and its use was rare prior to 2009.[3] Furthermore, even without section 304 and company-level clawbacks, companies could still attempt to recover from the CEO based on an equity principle like unjust enrichment (Langevoort, 2007). The problematic aspect is that equity claims have an inconsistent record of success. In Scrushy v. Tucker (2006), the defendant argued that the employment contract should be determinative and since the bonus provision did not address misstatements, no recovery, particularly under an unjust enrichment theory, should be allowed. The court rejected the argument and the unjust enrichment argument prevailed. In contrast, the court in Miller v. Foodservice (2005) notes that in Maryland "unjust enrichment claims are viable only when an express contract does not exist between the parties." Because an employment agreement existed for Miller which did not address financial misstatements, the court rejected the unjust enrichment theory.[4] As a result, the proactive adoption of clawback provisions enhances the appearance of oversight and may reduce the cost of recovery.

A clawback provision may also reduce any SEC penalty in the event of a restatement. In 2006, the SEC provided a statement of policy regarding how they will assess penalties on companies in the

[3] In 2007, the SEC brought charges against four companies and executives using Section 304 plus a number of other violations. All charges were brought after the proxy season had begun. Two of these companies were in our sample. Both companies had restatements as the result of options backdating. The other two companies, not in our sample, had restatements as a result of options backdating and a combination of issues that included misstating inventory. Reportedly, the first settlement under Section 304 was with the former United Health Group CEO/Chairman who settled in late 2007 repaying stock sale profits and bonuses, plus a civil penalty for offenses related to the years 1994 through 2005 (Securities and Exchange Commission, 2007).

[4] In Miller, the company ultimately prevailed, but not based on the unjust enrichment theory.

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event of wrongdoing. Factors include the company's willingness to cooperate with the SEC and what the company does in the way of remediation. Langevoort (2007) notes in passing that the SEC's consideration of remediation represented a clear device for pressuring directors to take action in the event of wrongdoing. Clawback provisions are *ex ante* evidence that the directors are acting on behalf of the company to redress wrongs in the event of a restatement. This claim is consistent with The United States Department of Justice (n.d.) at Section 9-28-300, which states that a prosecutor may consider a company's efforts at disciplining wrongdoers. As a result, adopting a clawback provision places the board on the side of potentially safeguarding company assets on behalf of investors.

Dodd-Frank will expand the existence of clawbacks. It tasks the SEC to develop rules that require security exchanges to adopt listing standards requiring companies to implement and disclose clawback provisions. Dodd-Frank does not specify deadlines for rulemaking on these provisions and it is not clear what leeway companies will have in their governance provisions to comply with the Dodd-Frank requirements. For example, unlike SOX, misconduct is not part of the clawback trigger for Dodd-Frank, and Dodd-Frank targets the 'excess' bonus which may not be easily identified when a compensation committee has discretion over the bonuses. Also, Dodd-Frank is triggered by a 'material noncompliance' leading to a restatement and what may constitute material noncompliance is not obvious. Hence, there is leeway for a company to develop its own due process as part of compliance with Dodd-Frank. As a result, clawbacks that follow the lead of SOX have different provisions and possibly different governance regimes compared to clawbacks that fit into the Dodd-Frank style.

## 3. Prior literature and hypothesis development

The board of directors is the supreme body of the corporation charged with governance (Weinberg, 1949). Post-SOX there is additional pressure on directors to demonstrate independence, vigilance, and competency in governing the corporation. The pressure derives in part from an awareness of the penalties imposed by statute, civil penalties, and market forces. For example, consider the market for managers and directors in the wake of failures like restatements. Arthaud-Day et al. (2006) find that turnover of both officers and directors increase in the wake of a restatement, suggesting that consequences to restatements are visited on any party (both managers and directors) directly associated with corporate governance. Srinivasan (2005) finds that outside directors, especially outside members of the audit committee, are more likely to leave the board when a company completes a restatement and that the directors lose directorships at other firms. More generally, investors seemingly attend to the quality of corporate governance, particularly ratings from Standard & Poor's and GovernanceMetrics International (McGee, 2005). As a result, directors have an interest in activities that identify them as aligned with good governance. For example, boards are more likely to terminate CEOs (Wu, 2004) after being labeled as worst governing by the California Public Employees' Retirement System and withhold bonuses on CEOs (Burks, 2010) when there are restatements.

Elsbach et al. (1998) also argue that concerns over image are salient and influence organization activities, so that taking actions that manage the impressions of external stakeholders allow the board to be seen as effective. Development and adoption of policies like clawbacks that reflect independence and vigilance illustrate that board interests are coincident with the interest of outsiders. At the same time, actual implementation of those provisions is subject to additional internal deliberations and possible struggles. Implementation of some provisions may not happen if they subject a strong CEO, for example, to unwanted compensation risk and loss of autonomy, or create disharmony within the board. As a result, the literature suggests that adoption is a separable decision from implementation, seemingly satisfying both internal and external constituents, at least at the point of adoption (Fiss and Zajac, 2006). Consistent with this, Westphal and Zajac (1998) and Zajac and Westphal (1995) find that the adoption of Long Term Incentive Plans (LTIP) could sometimes be symbolic. Boards can adopt these plans, but actual implementation is less likely in the presence of a strong CEO. Similarly, when

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companies adopt stock repurchase plans the actual implementation seems to depend on the relative strength of the board (Westphal and Zajac, 2001). In these cases, adoption enhances the appearance of legitimacy without necessarily committing the company to implementation.[5]

At the same time, the adoption of clawback provisions is highly visible in the proxy and 8-K s, seems to respond to shareholder activism, and aligns company interests with shareholders. Nevertheless, while a board may see value in adopting, a board may also resist adopting a clawback provision because it raises possibly divisive issues among company leadership with regard to hypothetical issues that may not ever occur. Furthermore, it may not improve the prestige of company leaders if stakeholders conclude it is cheap talk. This level of uncertainty regarding the consequences of adoption suggests that companies may choose to follow an existing model. When facing greater uncertainty companies may imitate existing practices. Imitating choices already made by others reduces the chance that a choice will succeed or fail relative to the choices made by others (Lieberman and Asaba, 2006).

Prior research specifically on clawbacks suggests a variety of stakeholders believe the clawback to have an incremental effect. Recent findings suggest that, on average, clawbacks tend to affect the activities of managers, analysts, investors, and auditors. The average effect of clawback adopting appears to be a decline in the propensity to meet-or-beat earnings per share, higher earnings response coefficients, a tightening of the dispersion of EPS forecasts, and higher salary compensation with perhaps a reduced incidence of restatements and lower audit fees (Chan et al., 2012; Dehaan et al., 2013). Given the variation in clawback provisions and the difference between adoption and implementation, the effect of monitoring oriented governance on clawback adoption and the set of provisions adopted are empirical issues. Brown et al. (2011) address the empirical issue by including a series of governance features as independent variables. They find that CEO influence, particularly as measured by tenure, discourages the presence of a clawback.

We go beyond Brown et al. (2011) by constructing an index that describes the company's balance between a board focused on monitoring with sensitivity to vigilance and oversight compared to a board that allows management entrenchment.[6] Our index construction is straightforward. We equally weight a list of governance features for each company.[7] A feature that increases the oversight and alliance with shareholders adds to the index. A feature that indicates that management has influence

[5] This seems closely related to the window-dressing literature. Lakoniskok et al. (1991) report that pension fund managers sell loser stocks and purchase winner stocks just before disclosure dates. The implication is that it makes them look better even though it does not change the performance of the fund. More recently, mutual fund managers were also shown to sell losers and purchase winners prior to year end, suggesting that managers believe that the presence of the losers might cause the managers to look bad without changing the performance of the mutual fund (Elton et al., 2010). Dechow et al. (2010) similarly observe that managers engage in securitization for purposes of appearance, finding that the sensitivity of CEO pay for gains from securitization was not different from regular earnings components. This sensitivity persists whether the board is made up of relatively more outside directors or relatively fewer. Apparently, board monitoring does not reach a threshold that prevents the securitization gains from generating bonuses to management.

[6] Using an index is not uncommon. In addition to Gompers et al. (2003) and Choe et al. (2009), Bamber et al. (2010) employ an index, using a simple index to measure CEO job security. Their index is the sum of whether the CEO is also the Chairman (a zero-one variable) and whether the percentage of outside directors is greater than the sample median (a zero-one variable). Anderson et al. (2009) similarly build an index of opacity out of four sub-indexes of opacity. An alternative to an index might be factor analysis like Dechow et al. (1996). About the use of factors, they state, 'We adopt this approach because the governance variables are highly correlated and appear to be measuring similar underlying constructs.' Our study faces the same issues that each of those papers faced. An index (or factor analysis) accumulates information about a construct into a single variable. In our case, each individual element in the index illustrates a single (potentially separable) way in which the governance tilts toward or away from management influence. By cumulating across individual elements, we know more about the extent to which a company tilts toward or away from management influence than by examining a single element.

[7] Literature is not settled on how best to capture the governance characteristics of a company. At one extreme Gompers et al. (2003) use 24 variables to capture governance and they relate the resulting index to market returns. Bergstresser and Philippon (2006) use the Gomper's index as a control while explaining the use of discretionary accruals for earnings management – implicitly arguing that accounting policy is conditioned on an index of corporate governance. Bebchuk and Cohen (2005) separate the Gompers index into whether the company has staggered elections for directors versus all other characteristics, being interested in whether the single characteristic of staggered elections represents entrenchment that reduces company value. At the other extreme, Leone et al. (2006) do not explicitly consider governance characteristics when they investigate the asymmetry in executive pay. We use a limited set of governance variables to capture the role that governance structure plays in the decision to impose a clawback provision.

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subtracts from the index. Therefore, companies at the high end of the index are highest in oversight or monitoring. Companies at the low end of the index show the most management entrenchment. Gompers et al. (2003) use a similar approach relating to governance provisions stating:

> While this simple index does not accurately reflect the relative impacts of different provision, it has the advantage of being transparent and easily reproducible. The index does not require any judgments about the efficacy of wealth effects of any of these provisions; we only consider the impact on the balance of power.

There is a long list of possible indicators for how influence is distributed in a company. Gompers et al. (2003) use 28 indicators distributed across five categories and Choe et al. (2009) use a variety of measures distributed across three categories. Our index includes thirteen features representative of the literature. We organize them broadly into two subindices: organization and voting. Most of our features are simply present or absent which we count in the index as a one or zero.

The first component in the index is whether the CEO is also the Chairman of the Board. Termed *CEO_duality*, the literature generally argues that this constitutes a barrier to effective oversight. The concentration of titles increases CEO influence over decisions (Adams et al., 2005) and makes it is more difficult to remove the CEO (Dahya et al., 2002). Certainly, the adoption of the clawback provision does not directly cost the CEO anything. It is implementation of the clawback that would be costly to the CEO, but that is a separate decision and it is deferred to the time when there is a restatement. At the same time, if a restatement occurs, a company and CEO may find themselves in an embarrassing position to have a clawback provision that requires action and not act on it. On net, this appears to argue that CEOs will oppose clawbacks and use their dual status to oppose it. For companies with a clawback provision, we identify *CEO_duality* from the proxy announcing the clawback provision. For companies without a clawback provision, we use the proxy for the year 2007.[8]

The second component in the index, *proportion*, relates to the proportion of independent directors on the board (see for example, Eng and Mak (2003)). Directors lose when their monitoring fails. Srinivasan (2005), Arthaud-Day et al. (2006), and Kang (2008) among others describe the severe consequences to directors from failures like restatements. Outside directors and audit committee members, directors particularly relevant to the monitoring function, are especially hard hit. They tend to lose their directorships in the company experiencing the restatement as well as directorships in other companies. These *ex post* consequences should drive *ex ante* consideration of restatements. For companies with a clawback provision, we identified the directors from the proxy announcing the clawback provision.[9]

A CEO entering the office following a restatement, *New_CEO*, is likely to be disadvantaged in conversations concerning clawbacks. In consequence, we expect a CEO who became CEO subsequent to a restatement in the last five years as likely to have less power regarding the presence of clawback provisions in compensation plans. We use restatements due to irregularities as defined by Hennes et al. (2008). Hennes et al. (2008) uses three criteria to distinguish errors from irregularities. Irregularity-based restatements are from firms (1) that use irregularity or fraud in describing the restatement, (2) where the SEC or DOJ are involved, or (3) where the disclosure indicates an independent investigation is involved.

[8] We use the proxy when the clawback is disclosed as the date of our dependent variable. If the disclosure initially came from an 8-K, we use the proxy immediately prior to the 8-K. We take data about governance structure, including CEO, director, and ownership information, from that proxy, or the most immediately available data prior to that proxy. We take financial information from the financial statements most immediately prior to that proxy. When we refer to, say, last five years, we count back from the year of the proxy. For companies without clawbacks, we use year 2007 as the year of the dependent variable. We note any variation from this process.

[9] Recent regulatory interference may affect this component of the index. We examine S&P 500 companies traded on the NYSE or NASDAQ during 2007–2008. Typical aspects of the board of directors have been significantly homogenized in the last few years. In 2002, Harvey Pitt, SEC Commissioner (2001–2002) asked the NYSE and NASDAQ to review corporate governance rules (Securities and Exchange Commission, February 13, 2002). The NYSE response was rule 303A.01, Corporate Governance Standards (NYSE, 2013). Section 303A.01 states that listed companies must have a majority of independent directors and specifies the criteria for independence. The regulation affects most companies reducing the variation in measures that rely on the proportion of independent directors, making such measures less likely to be explanatory variables. "Controlled companies" are exempt from this requirement.

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Ownership both increases power (Zajac and Westphal, 1995) and reduces the need for outside oversight (Brickley et al., 2003), so we include several variations on ownership. We include the percentage of the company owned by individuals holding 5% or more of the company, *inside ownership*. We also include whether (1) the founder is still active, *founder,* (2) whether the company is listed by Business Week (2003) as a family business, *family business*, and (3) whether the company has dual classes (tiered ownership rights) of stock, *dual class*. The existence of dual classes of stock is included because it is a device by which owners, particularly families, can leverage their position to have control rights in excess of cash-flow rights (Villalonga and Amit, 2009). On net, we have seven components that we accumulate in an 'organization' subindex. Each component has a maximum (minimum) contribution of one (zero) to the index. We divide *proportion* and *inside ownership* into quartiles and include them as 0, 0.33, 0.66, or 1, depending on the quartile. *Proportion* and *New_CEO*, increase the index while the other five components decrease the index.

The second subindex we take from Gompers et al. (2003). Gompers et al. (2003) is interested in takeover defenses, which raise similar though not identical governance issues to clawbacks. Gompers et al. (2003) uses 24 components divided into five subindices: delay, protection, voting, other, and state laws. Some of these subindices measure the ability to 'delay,' for example, a takeover bid. Others, like 'protection' include whether the board has granted the CEO a golden parachute. However, the Gompers et al. (2003) subindex most closely related to the degree of management control is the 'voting' subindex, where each component gives management a tool to allow or resist shareholder participation. They use publications from the Investor Responsibility Research Center that code governance provisions for about 1500 companies. As a result, we include the six components of the voting subindex in our index. The first two components are limits on the shareholders' ability to amend the bylaws (*limit amend bylaws*) or amend the charter (*limit amend charter*). These provisions favor management entrenchment.

*Cumulative voting* gives a shareholder as many votes as the product of number of directors and number of shareholder shares. The shareholder can allocate those total votes in any manner desired, meaning that minority shareholders are more readily able to elect directors. *Secret ballot*, indicates that an independent third party is used to count proxies, meaning that there is less pressure on shareholders to vote a particular way, especially shareholders with other connections to the company, such as being an employee. The existence of cumulative voting and secret ballots reduce management entrenchment and favor a monitoring orientation.

*Super majority* indicates that the charter requirement for mergers or other business combinations is higher than the threshold requirements for state law, and *unequal voting* indicates that the company limits voting rights of some shareholders and expands the voting rights of others. *Unequal voting* can include a phase-in approach limiting voting to shareholders who have held the shares for a sufficient period of time, or perhaps limiting voting to shareholders who have a certain threshold of shares. The presence of these provisions enhances management entrenchment. Cumulatively, these provisions create a voting subindex. The presence of *secret ballots* or *cumulative voting* increases the subindex because influence tilts away from management. The other components decrease the subindex.

The result is a cumulative index across the 'organization' subindex and 'voting' subindex that we rank into top one-third and other for use as an independent variable in the regression. Cumulative governance that tilts toward management entrenchment (low index) reduces the likelihood of a clawback provision and governance that tilts toward oversight (high index) increases the likelihood of a clawback provision, so we arrive at the following hypothesis:

**H1.** Companies where the governance index indicates more oversight are more likely to have a clawback.

A higher index indicates a governance structure that tilts towards extreme oversight; hence H1 predicts that the index will be positively associated with the existence of a clawback provision. The first hypothesis addresses whether the governance structure is likely to be receptive to the idea of a clawback. We also expand on this notion to divide the dependent variable into styles of clawback (SOX, Dodd Frank, other styles, no clawback) motivated by whether companies with monitoring oriented governance see this decision as relatively higher in uncertainty and follow the prominent extant

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model per Lieberman and Asaba (2006). Finally, we break the dependent variable into a specific provision in the clawback related to what triggers the clawback. Misconduct seems to have some intrinsic interest because it might provide a basis for recovery similar to unjust enrichment. Thus, we code the alternative dependent variable according to whether misconduct is a trigger (misconduct, no misconduct, no clawback).[10]

The second hypothesis addresses the company's information collection regarding the decision. The history of clawbacks includes some early shareholder activism, the letter to the SEC from the Council of Institutional Investors, and the SEC's revision of Reg S–K. These were general prompts that were economy-wide. In addition, the literature related to compensation decisions also suggests that such decisions are affected by director interlocks with other boards (Bizjak et al., 2009; Cochran et al., 1985). When managers make decisions under uncertainty, they attempt to reduce that uncertainty by collecting information. One source of such information is other managers addressing similar problems (Reppenhagen, 2010). A board interlock is potentially a direct method of collecting information about how other managers are addressing the decision to include a clawback. Directors have formal and informal confidentiality requirements so that directors cannot report detailed information from other boards, however they possess and can report on their unique "business scan" or awareness of the environment (Useem, 1984). Particularly relevant to us is the literature showing that aspects of management compensation and reporting seem tied to director interlocks, including the adoption of golden parachutes (Cochran et al., 1985; Singh and Harianto, 1989), and fair value stock option expensing (Reppenhagen, 2010). Furthermore, Arthaud-Day et al. (2006) distinguish between other board members and members of the audit committee in the context of restatements. Taking a similar tack we focus on interlocks of members of the compensation committee. Based on this, we believe that compensation committee directors who are interlocked with other companies also developing clawback are more likely to introduce them in the current company.

**H2.** Companies with interlocks between the compensation committee directors and other companies with clawbacks are themselves more likely to have clawbacks.

Additional research suggests that we should add controls based on the notion that other circumstances can affect compensation-oriented governance. For example, the restatement literature considers after-the-fact consequences of restatements, such as management or director turnover, reputational penalties, and management bonuses (Bizjak et al., 2009; Burks, 2010; Desai, Hogan et al., 2006; Desai, Krishnamurthy et al., 2006; Kang, 2008; Srinivasan, 2005). The presence of a recent restatement is likely to make restatements more salient to the board and potentially to shareholders, suggesting that boards factor the possibility of future restatements into management compensation deliberations. As with the component of the index where we identify whether the CEO arrived after a restatement, we use the Hennes et al. (2008) definition of restatement. We designate the presence of a restatement in the last five years as *restatement*.

Francis et al. (2004) state that among the accounting-based earnings attributes, accrual quality has the most direct link to information risk, so we include a measure of accruals. Desai, Hogan et al. (2006), Desai, Krishnamurthy et al. (2006) similarly argue that accruals represent information risk pointing out that those firms with higher total accruals have earnings that are less persistent, have stock prices that fail to impound the implications of current accruals, and are more likely subject to SEC enforcement actions. We use total accruals following the lead of Richardson et al. (2005) and Dechow et al. (2011). However, while they use change in total accruals as a firm-year variable we average the measure across the last five years, make it absolute value, and designate it *accruals*. Higher *accruals* is a proxy for higher information risk.

Literature relates conservative accounting to a variety of company features. Ahmed and Duellman (2007) argue that conservative accounting reduces management's ability to overstate earnings and

[10] This generalizes to a variety of dependent variable specifications, besides what we present here. We present these examples, based on inherent interest. Brown et al. (2011) handles the presence of particular provisions by including them as additional independent variables. This gives them an opportunity to identify the likelihood of a provision emerging. This is in contrast to our clustering the provisions by SOX, etc., and treating them as the dependent variable. This allows us to intuitively captures the provisions' existence as a cluster representing a prior extant model that the company selects.

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management's ability to withhold information on expected losses. In addition, Lafond and Roychowdhury (2008) find evidence consistent with the argument that because conservative accounting understates the resources available for distributions, conservative accounting reduces the chances for opportunistic distributions. This appears to point to a general principle that conservative accounting reduces errant payouts, making contract provisions like clawbacks less necessary. In addition, EOG Resources (2007 Proxy) has this to say,

> We currently do not have any policies in place regarding the adjustment or recovery of payments or awards in the event that we were required to restate any of our financial results. We believe that *our accounting practices are conservative* and we have not been required to restate our financial results at any time since becoming an independent company in 1999...[*emphasis added*]

Taken in the measurement sense of the accounting literature, EOG Resources agrees that conservative accounting reduces the need for a clawback provision.[11]

The Hui et al. (2009) strategy, in the absence of a single generally accepted empirical measure of conservatism, is to use an aggregate measure of conservatism. They use a factor score derived from principal-component factor analysis of three individual measures of conservatism with the idea that the factor score should extract the common variation across the conservatism measures. We also use three measures, though our measures differ in some respects. The first measure is a market-to-book measure, similar to and Givoly and Hayn (2000); the second measure is the degree of 'hidden reserves' on the balance sheet, following Penman and Zhang (2002); the third measure is the skewness of net income relative to cash from operations, following Givoly and Hayn (2000). Carrying out a factor analysis on these measures (market-to-book, hidden reserves, and relative skewness) gives our measure of conservatism.[12]

Ahmed and Duellman (2007) include *Institutional Ownership* as a control variable because institutional investors are viewed as driving governance mechanisms. Institutional investors perform monitoring activities as their voting power allows them to significantly influence management (Bhojraj and Sengupta, 2003; Shleifer and Vishny, 1986) and as we noted, it was the Council of Institutional Investors who prompted the SEC to change Reg S–K. We use the percentage of shares outstanding owned by all institutional investors as an explanatory variable.

One additional consideration is whether the bonus is a significant amount of the profits of the company. When bonuses make up more of the company income, demonstrating oversight regarding the bonus and the ability to recover them would seem to be more important. To estimate the materiality of bonuses we use the average bonus (in thousands) over three years as a percentage of assets (in millions). Finally, we include assets (in billions), average sales growth over the last three years, and industry controls based on the company's two-digit SIC code.

[11] It is also possible that they mean "conservative" in the sense of care over internal control processes and not in a measurement sense. For example, Chan et al. (2012) find fewer internal control weaknesses post-adoption.

[12] Our measures are derived from, but not the same as, prior measures. The first measure is the market to book measure. This measure represents both general conservatism and delayed recognition (Beaver and Ryan, 2005). Beatty et al. (2008) control for the effect of growth in the market to book measure by including growth as an additional independent variable. We control for growth by using a residual from a pooled OLS regression of market to book on the 5-year average growth in sales. A higher level of the residual is a proxy for more conservatism.

The second measure is from Penman and Zhang (2002). They treat accounting methods as conservative if the methods result in asset valuation figures lower than historical cost. They use three extreme examples of accounting methods, LIFO inventory, advertising, and R&D, computing a hypothetical level of assets as though these assets had been capitalized and amortized. The resulting measure compares a difference between the hypothetical assets and reported assets, scaled by reported operating assets. In comparing across measures of conservatism, Givoly et al. (2007) find that this 'hidden reserves' measure is positively correlated with most other measures, but less than perfectly which suggests that it may contain separate information. Higher 'hidden reserves' is a proxy for more conservatism.>

The third measure, derived from Givoly and Hayn (2000), is the comparison of skewness of net income to skewness of cash from operations. Conservatism means the early and full recognition of unfavorable events and the delayed and gradual recognition of favorable events. This creates skewness in income compared to cash flows. We break skewness of net income and skewness of cash from operations into deciles and we use this difference as the measure: decile of cash flow skewness minus decile of income skewness. The skewness measures are derived from 20 quarters. Higher levels of this measure represent more conservatism.

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## 4. Empirical design

### 4.1. Sample selection

The year 2006 was a watershed year for the development of company-level clawback provisions. The SEC's request for comment and the letter from the Council of Institutional Investors were both in 2006. Provisions in the Final Rule were known no later than third quarter, 2006. Companies adopting clawback provisions in late 2006, like Cardinal Health (October 3) and Monsanto (December 6), clearly had access to the Final Rule. Companies adopting earlier in 2006, like Bristol–Myers–Squibb (March 22) and Eastman Kodak (March 24), likely knew about proposed changes from comment letters and conferences. Therefore, we treat 2006, 2007, and 2008 proxies that contain a clawback provision as early adopters – early adopters in the sense that these companies quickly changed their compensation provisions.

The Corporate Library reports a list of S&P 500 companies that have proxies containing clawback provisions. We reviewed and supplemented that list to arrive at the dependent variable, which is the existence of a clawback provision triggered by restated financial statements. Inspecting the company's disclosure, we code whether misconduct is required as a trigger, whether the company specifies a due process, and whether the clawback targets the excess payment or the entire payment. The remaining S&P 500 companies serve as our comparison group.

### 4.2. Logit model

The probability of the existence of a clawback is examined using a logit regression. The probability of the emergence of the multiple styles of clawbacks is examined using a multinomial logit regression. The estimated equation is

$$y = f(\alpha + \beta_1 * Index + \beta_2 * Interlock + \beta_3 * Restatement + \beta_4 * Accruals + \beta_5 * Conservatism + \beta_6 * Bonus\ materiality + \beta_7 * Assets + \beta_8 * Institutional\ ownership + \beta_9 * Sales\ growth + \sum \beta_i * Industry_i + \varepsilon) \quad (1)$$

where $y$ is $Prob(clawback_i)$ with $i$ being existence of clawback (present or absent), or $Prob(clawback_i)$ with $i$ being the clawback style (SOX, Dodd Frank, other, no clawback), or $Prob(clawback_j)$ with $j$ being the misconduct provision (misconduct trigger, misconduct not required to trigger, no clawback).

| | |
|---|---|
| *Index* | An index of monitoring orientation versus management entrenchment for corporate governance. The index is calculated as the sum of $-CEO\_duality + 0.33 * quartile\ rank\ of\ proportion + New\_CEO - 0.33 * quartile\ rank\ of\ inside\ ownership - founder - family\ business - dual\ class - limit\ amend\ bylaws - limit\ amend\ charter + cumulative\ voting + secret\ ballots - supermajority\ voting - unequal\ voting$, divided by 13. The quartile ranking for the two quartile ranked variables is multiplied by 0.33 to give them a zero to one scale. The index variable is split with the top 1/3 set equal to 1. A value of 1 indicates extreme monitoring orientation |
| *Interlock* | The presence of at least one director on the compensation committee that is interlocked with another company that has a clawback is set to one. Otherwise, zero |
| *Restatement* | Companies which have had recent restatements due to irregularities. Restatement is a dummy variable equal to 1 if the company had a restatement due to irregularities in the last five years. We follow Hennes et al. (2008) by reading the disclosures for evidence that the restatement firms (1) use irregularity or fraud in describing the restatement, (2) indicate that the SEC or |

(continued on next page)

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| | |
|---|---|
| | DOJ are involved, or (3) refer to independent investigations. Any of these in the disclosure results in the restatement coded as being due to irregularities |
| *Accruals* | The absolute value of the average accruals over the last five years. The variable, accruals, is the change in total long-term non-cash operating assets. To compute the change in total long-term operating assets, we follow Dechow et al. (2011) and Richardson et al. (2005) |
| *Conservatism* | The conservatism of the company's accounting system is measured as the factor from three conservatism measures. The three conservatism measures are: the residual of market-to-book regressed on 5-year sales growth; unrecorded asset reserves; and difference between the decile skewness of cash from operations and decile skewness of net income. We perform a factor analysis and use the resulting factor |
| *Bonus materiality* | Average bonus (thousands) over the three years prior to the clawback provision divided by assets (in millions) |
| *Asset* | Assets measured in billions |
| *Institutional ownership* | Percentage of the company owned by institutions |
| *Sales growth* | The 3-year average growth in sales |
| *Industry* | The two-digit SIC code as a series of zero/one variables |

## 5. Results

### 5.1. Descriptive statistics

Tables 1 and 2 describe the distribution of the dependent variable. We begin with The Corporate Library reports for the S&P 500 for June, 2008. Four companies did not have available proxies leaving us with 496 companies. Table 1 reports that there are 145 (29.23%) companies with clawback provisions.[13] Thus, the unconditional odds of a company having a clawback is 0.41 to 1 ($0.2923/(1 - 0.2923)$).

Not all clawbacks are the same. Table 2 reports the distribution of selected attributes in the clawback provisions. While disclosures vary from a single sentence to short paragraphs, we code the appearance of three attributes when they occur in the disclosures. We code: whether misconduct is a trigger, whether the clawback allows for the excess bonus as a target (versus the entire bonus), and whether the provision specifies a due process to follow in recovering the bonus. By comparison, SOX specifies misconduct as a trigger, specifies the entire bonus is subject to clawback, and is silent regarding due process. Dodd-Frank does not limit recovery to restatements where there has been misconduct, provides recovery of only the bonus in excess of what the executive would have received in the absence of the mistake, and seemingly allows for due process by allowing companies to prescribe their own policy. With this in mind, we subdivide clawbacks into those that line up with *SOX*, *Dodd Frank*, or are different from both (*Different*). In Table 2 we note that most of the provisions, 114 of 145, state that misconduct is a trigger to implementing the policy. In addition, a subset of the 114 incorporate the other SOX-style provisions so that there are 76 companies that seem to follow a SOX-style clawback. Similarly, of the 31 companies where misconduct is not a requirement, 17 also make reference to recovering an excess and provide a due process for implementing the provision. These 17 are most similar to Dodd Frank, though Dodd Frank was still several years from being signed, and the small number suggests that this is an infrequent choice for companies to voluntarily adopt. The remaining 52 clawback provisions are different from both SOX and Dodd-Frank in at least one attribute. Table 3 details the reduction in observations from 496 to the 341 we use in the logit

[13] In 6 instances, shareholders brought a proposal prior to adoption. In all 6 instances, the board opposed the proposal and in 5 instances the proposal was voted down. All 5 companies where shareholder proposals were voted down developed clawbacks in the following year, so that all 6 companies have clawbacks.

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**Table 1**
Distribution of clawback provisions.

| | Frequency | Percentage |
|---|---|---|
| S&P 500 companies with a clawback provision | | |
| First disclosed in 2006 | 10 | 2.02 |
| First disclosed in 2007 | 90 | 18.15 |
| First disclosed in 2008 | 45 | 9.07 |
| Total | 145 | 29.23 |
| S&P 500 companies without a clawback provision | 351 | 70.77 |
| S&P 500 company proxies surveyed | 496 | 100.00 |

There are 496 companies rather than 500 because four companies did not have 10-K s and proxies available on EDGAR. The list of clawbacks began with data from The Corporate Library and was supplemented by inspection of the company proxy.

**Table 2**
Provisions in the clawback provisions.

| Provision | Yes | No | Total |
|---|---|---|---|
| Misconduct | 114 | 31 | 145 |
| Recover excess | 26 | 119 | 145 |
| Due process | 35 | 110 | 145 |
| Similar to SOX | 76 | | |
| Similar to Dodd-Frank | 17 | | |
| Different from SOX and Dodd-Frank | 52 | | |

**Misconduct** is a criteria to triggering the clawback provision.
**Recover excess** means the recovery is the excess, or some amount less than the entire incentive amount.
**Due process** means the company specifies a due process to decide the recovery.
**Similar to SOX** means the provisions require misconduct, and no reference to either excess or due process.
**Similar to Dodd-Frank** means the provisions do not require misconduct, and make reference to both recovering the excess and due process.
**Different from SOX and Dodd-Frank** is the remaining companies.

**Table 3**
Observation attrition.

| | |
|---|---|
| The Corporate Library | 496 |
| Less financial firms | 89 |
| Less insufficient IRRC Governance Data | 24 |
| Less insufficient compustat data | 42 |
| Final observations | 341 |

regressions. The largest loss is due to dropping companies in the 6000-level SIC codes, which are financial companies.

Table 4 describes the univariate comparison of each of the components of the index with the presence or absence of a clawback provision. With regard to the variables in the organization subindex, the direction of each of the components is generally consistent with the idea that more independent governance is associated with the presence of a clawback provision, the exception being *CEO_duality*. Seventy-eight percent of companies with clawbacks have CEOs who are also chairman of the board, *CEO_duality* is coded one, while 60% of companies without clawbacks combine the offices. This difference produces a chi-square statistic of 11.33 (1 df), which is significant at the 0.01 level. The mean *proportion* of independent directors is 0.85 for companies with clawbacks and 0.80 for companies without clawbacks. This difference produces a *t*-statistic of 4.82, which is significant at the 0.01 level. While not reported, the first quartile of *proportion* is 0.75, which suggests substantial compliance with the listing requirements, since all of these observations are from proxies after the NYSE and NASDAQ rules that require a majority of directors be independent. We find that 10% of CEOs of companies with

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**Table 4**
Univariate comparison of components of the index.

| Variable | | With clawback | | Without clawback | | Statistics for difference in means *t*-stat. or (chi-square) |
|---|---|---|---|---|---|---|
| | | *N* = 105 | | *N* = 236 | | |
| | Add/subtract for index | Mean | Median | Mean | Median | |
| *Organization* | | | | | | |
| CEO_duality | – | 0.78 | 1.00 | 0.60 | 1.00 | (chi) 11.33*** |
| Proportion | + | 0.85 | 0.88 | 0.80 | 0.82 | 4.82*** |
| New_CEO | + | 0.10 | 0.00 | 0.06 | 0.00 | (chi) 1.66 |
| Inside ownership | – | 3.96 | 0.91 | 5.91 | 1.15 | −1.81* |
| Dual class | – | 0.03 | 0.00 | 0.05 | 0.00 | (chi) 0.64 |
| Founder | – | 0.13 | 0.00 | 0.25 | 0.00 | (chi) 6.28** |
| Family business | – | 0.30 | 0.00 | 0.33 | 0.00 | (chi) 3.95** |
| Subindex | | −0.14 | −0.10 | −0.19 | −0.17 | 2.46*** |
| *Voting* | | | | | | |
| Limit amend bylaws | – | 0.23 | 0.00 | 0.21 | 0.00 | (chi) 0.19 |
| Limit amend charter | – | 0.01 | 0.00 | 0.03 | 0.00 | (chi) 1.05 |
| Cumulative voting | + | 0.07 | 0.00 | 0.08 | 0.00 | (chi) 0.20 |
| Secret ballots | + | 0.42 | 0.00 | 0.20 | 0.00 | (chi) 16.46*** |
| Supermajority voting | – | 0.15 | 0.00 | 0.15 | 0.00 | (chi) 0.00 |
| Unequal voting | – | 0.01 | 0.00 | 0.01 | 0.00 | (chi) 0.01 |
| Subindex | | 0.01 | 0.00 | −0.02 | 0.00 | 2.04** |
| *Organization subindex+* | | | | | | |
| Voting subindex | | −0.07 | −0.05 | −0.11 | −0.10 | 2.85*** |

*Data definitions*

Organization subindex

*CEO_duality* The CEO is also the Chairman of the Board. For companies with a clawback provision, we identified *CEO_duality* from the proxy announcing the clawback provision. We use the proxy that describes which directors were in place when the clawback was announced as the root source for the data. If the clawback was announced in a proxy then that proxy is the source. If the clawback was announced in an 8-K, then the immediately preceding proxy is the source. If the company did not have a clawback provision, we used the proxy for the year 2007

*Proportion* The proportion of independent directors on the board. We present the raw proportion. In the index we divide *proportion* into quartiles and include them as 0, 0.33, 0.66, or 1, depending on the quartile. From the proxy announcing the clawback provision

*New_CEO* A CEO who became CEO subsequent to a restatement in the last five years. Tenure as CEO is from the proxy. Restatements are defined as restatements due to irregularities as defined by Hennes et al. (2008). Hennes et al. (2008) uses three criteria to distinguish errors from irregularities. Irregularity-based restatements are from firms (1) that use irregularity or fraud in describing the restatement, (2) where the SEC or DOJ are involved, or (3) where the disclosure indicates an independent investigation is involved

*Inside ownership* We include the percentage of the company owned by individuals holding 5% or more of the company). We present the raw percentage. In the index we divide *inside ownership* into quartiles and include them as 0, 0.33, 0.66, or 1, depending on the quartile. From the proxy

*Founder* The founder is still active in the company. From the proxy

*Family business* The company is listed by Business Week (2003) as a family business

*Dual class* The company has dual classes (tiered ownership rights) of stock. From compustat

*Organization subindex* The sum of −CEO_duality +rank of Proportion + New_CEO − rank of inside ownership − Founder − Family business − Dual class. We use the ranks of proportion and insider ownership, divided into 4 ranks, 0, 0.33, 0.66 or 1. The individual components are measured as zero-one values

Voting subindex

*Limit amend bylaws* The company governance structure limits the shareholders' ability to amend the bylaws. The voting subindex is from Investor Responsibility Research Center (2006), which tracks governance provisions across about 1500 companies. We use the voting subindex from Gompers et al. (2003)

*Limit amend charter* The company governance structure limits the shareholders' ability to amend the bylaws

*Cumulative voting* A shareholder has as many votes as the product of number of directors and number of shareholder shares

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| | |
|---|---|
| *Secret ballot* | An independent third party is used to count proxies |
| *Super majority* | The charter requirement for mergers or other business combinations is higher than the threshold requirements for state law, and |
| *Unequal voting* | The company limits voting rights of some shareholders and expands the voting rights of others |
| *Voting subindex* | The sum of Limit amend bylaws – Limit amend charter + Cumulative voting + Secret ballots – Supermajority voting – Unequal voting. The individual components are measured as zero-one values |
| Organization subindex + Voting subindex | The index is the two level rank of the sum of –CEO duality + rank of Proportion + New_CEO – rank of inside ownership – Founder – Family business – Dual class – Limit amend bylaws – Limit amend charter + Cumulative voting + Secret ballots – Supermajority voting – Unequal voting, divided by 13. We use the ranks of proportion and insider ownership, divided into 4 ranks, 0, 0.33, 0.66 or 1. The other components are measured as zero-one values. In subsequent tables, we rank the index into top the top third (1) and middle/lower third (0) with the top third representing extreme monitoring orientation |

*, **, *** indicate significant using two tailed tests at the 0.10, 0.05, and 0.01 level respectively, assuming unequal variances. These are chi-square statistics, denoted (chi), or *t*-statistics. The chi-square statistics have 1 df.

clawbacks have been hired since a restatement, *New_CEO*. The difference in *New_CEO* between companies with clawbacks and without clawbacks is not significant at conventional levels.

*Inside ownership* is significantly lower for companies with clawbacks at 3.96% compared to *inside ownership* for companies without clawbacks. Companies with high levels of concentrated ownership in the sample include The Washington Post, Expedia, Sears Holding Company, and Titanium Metals, none of which had clawback provisions. While not reported, the percentage ownership increases rapidly in the highest ownership-quartile of the S&P 500, averaging over 18% for that highest quartile. The 20 companies with the highest inside ownership average over 40% inside ownership. We use quartile ranks for this component because of the substantial skewness in the variable.

The other ownership-related components involve *dual classes* of stock, participation by the *founder*, and designation as a *family business*. The *founder* is still active in 13(25)% of companies with (without) clawbacks, and a small percentage of companies, both with clawbacks and without clawbacks, have dual classes of stock. Business Week (November 10, 2003) listed 177 companies as family businesses, of which 110 are in our final set of observations. Overall, 32% of the companies in our sample have been identified as a *family business*, with 30% of companies with clawbacks designated as family businesses and 33% of companies without clawbacks designated as family businesses. While not tabulated, family businesses have a much higher percentage inside ownership than non-family businesses (*t*-statistic of over 6).

Turning to the voting subindex, we find that 42% of companies with clawbacks and 20% of companies without clawbacks have a provision for *secret ballots* consistent with the idea that governance rules favoring shareholder action result in a higher probability of clawback provisions. The cumulative subindex from the voting components has an average of 0.01 for companies with clawbacks and −0.02 for companies without clawbacks. While the voting subindex components other than *secret ballot* are not significantly different for firms with and without clawbacks, the combination of these factors in the voting subindex is significant in identifying firms with clawback provisions (*t*-statistic of 2.04). The voting subindex for companies with clawbacks is positive, hence these companies tilt more toward a monitoring orientation. Similar to the organization subindex, the voting subindex suggests a difference in governance between the two sets of companies. In addition, the two subindices are correlated. The Pearson (Spearman) coefficient between subindices is 0.16 (0.19), with *p*-values less than 0.01. The sum of the two indices has a mean of −0.07 for companies with clawbacks and −0.11 for companies without clawbacks, a difference that is significant at the 0.01 level and consistent with the hypothesis.

Table 5 reports the distribution of the *index*, *interlock*, and control variables. After computing the aggregate index in Table 4, we distinguish between the top third index score and other companies,

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**Table 5**
Summary of independent variables ($N = 341$).

| Variable | Mean | Std. dev. | 1st Quartile | Median | 3rd Quartile |
|---|---|---|---|---|---|
| Index | 0.33 | 0.47 | 0 | 0 | 1 |
| Interlock | 0.68 | 0.47 | 0 | 1 | 1 |
| Restatement | 0.19 | 0.39 | 0 | 0 | 0 |
| Accruals | 0.05 | 0.05 | 0.02 | 0.04 | 0.07 |
| Conservatism factor | 0.02 | 0.41 | −0.21 | −0.05 | 0.19 |
| Bonus materiality | 0.55 | 0.69 | 0.17 | 0.33 | 0.63 |
| Assets (in billions) | 21.57 | 50.42 | 4.00 | 9.00 | 21.24 |
| Institutional ownership | 0.19 | 0.15 | 0.07 | 0.18 | 0.28 |
| Sales growth | 0.14 | 0.14 | 0.06 | 0.12 | 0.20 |

Data definitions

| | |
|---|---|
| *Index* | From Table 4, this is the index of 13 governance structure components organized into a zero-one ranking. The top third is labeled a one for most extreme monitoring orientation |
| *Interlock* | The presence of director interlocks between directors on the compensation committee who are also on boards of other companies where the other company has a clawback provision |
| *Restatement* | Restatements as a result of irregularities. We use the Hennes et al. (2008) definition of whether the company had a restatement due to an irregularity in the last five year. A restatement is the result of an irregularity if it meets any of the following characteristics: 'fraud' or 'irregularity' is used in describing the restatement; a Department of Justice or SEC investigation is associated with the restatement; or additional investigations into the accounting matter are described |
| *Accruals* | The absolute value of the average over five years of the change in non-cash net operating assets. We take the absolute value of the measure from Richardson et al. (2005) |
| *Conservatism Factor* | This is a factor score derived from a principal-component factor analysis of the three individual measures of conservatism. The first measure is the residual of market value of assets to book value of assets regressed on 5-year sales growth. The second measure is "hidden reserves," defined by Penman and Zhang (2002) as the sum of the LIFO reserve, the capitalized value of R&D and advertising expenses, deflated by operating assets. The third measure is the difference between the skewness of cash from operations and skewness of net income. Skewness is measured over 20 quarters. Cash from operations and net income are scaled by beginning of the quarter total assets |
| *Bonus Materiality* | The average ratio of bonus to assets over a three year period. Bonuses are in thousands. Assets are measured in millions |
| *Assets* | Assets measured in billions |
| *Institutional ownership* | Percentage of the company owned by institutions |
| *Sales growth* | The 3-year average growth in sales |

so that beginning with Table 5, the index carries the values, 0, or 1.[14] The mean of *index* is 0.33. The mean (median) fraction of compensation committees with *interlock* is 0.68. About 19% of the companies had a *restatement*. The mean (median) of *accruals* is 0.05 (0.04). The *conservatism factor* has a mean (median) of 0.02 (−0.05). On average, *bonus materiality* suggests that the mean bonus was 0.00055 of the assets, which we scale up by 1000 to 0.55. Institutions average 19% ownership of the shares, and over the last three years, sales have grown an average of 14%.

Table 6 presents correlations among the independent variables. Pearson correlations are reported above the diagonal and Spearman correlations are reported below the diagonal. Any correlation at least |0.09| is significant at the 0.10 level. The variables, *index* and *interlock* are positively related to each other and to *assets*. They are negatively related to *bonus materiality*. The variables, *index*, and *interlock* are not related to the existence of recent restatements nor to the level of conservatism.

Table 7 presents a univariate comparison of independent variables between groups. The two groups are different on *index*, *interlock*, *accruals*, *bonus materiality, assets*, and *sales growth*. The *index* is higher and there are more *interlocks* for companies that have clawbacks. This is consistent with governance that is more monitoring oriented increasing the likelihood of a clawback provision, and interlocks between compensation committees and other companies also working on clawback provisions

[14] The index could be subdivided into as many ranks as desired. We observe that it is at the high levels of monitoring orientation that the governance effect is observable, so we present results where we distinguish the highest third from the remainder.

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**Table 6**
Correlations among independent variables. Pearson above the diagonal and Spearman below the diagonal, $N = 341$.

| | Index | Interlock | Restatement | Accruals | Conservatism factor | Bonus materiality | Assets | Institutional ownership | Sales growth |
|---|---|---|---|---|---|---|---|---|---|
| Index | | 0.20 | 0.07 | −0.09 | 0.01 | −0.20 | 0.20 | −0.06 | −0.12 |
| Interlock | 0.20 | | −0.04 | −0.16 | −0.01 | −0.12 | 0.24 | −0.17 | −0.23 |
| Restatement | 0.07 | −0.04 | | 0.03 | −0.03 | −0.03 | −0.03 | 0.16 | −0.08 |
| Accruals | −0.08 | −0.19 | 0.02 | | −0.07 | 0.10 | −0.04 | −0.05 | 0.50 |
| Conservatism | 0.02 | −0.04 | −0.03 | −0.08 | | 0.17 | −0.06 | −0.04 | −0.04 |
| Bonus materiality | −0.24 | −0.19 | −0.10 | 0.18 | 0.13 | | −0.21 | 0.03 | 0.18 |
| Assets | 0.26 | 0.33 | −0.01 | −0.09 | −0.21 | −0.69 | | −0.21 | −0.06 |
| Institutional | −0.05 | −0.12 | 0.15 | 0.04 | −0.04 | 0.14 | −0.26 | | −0.09 |
| Sales growth | −0.09 | −0.16 | −0.05 | 0.40 | −0.09 | 0.20 | −0.06 | −0.09 | |

(1) Values of |0.09| or more are significant at least at the 0.10 level.
(2) See Table 5 for data definitions.

**Table 7**
Univariate comparison.

| Variable | Without clawback $N = 105$ | | Without clawback $N = 236$ | | Statistics for difference in means t-stat (chi-square) |
|---|---|---|---|---|---|
| | Mean | Median | Mean | Median | |
| Index | 0.61 | 0 | 0.44 | 0 | (chi) 18.87*** |
| Interlock | 0.85 | 1 | 0.60 | 0 | (chi) 21.88*** |
| Restatement | 0.24 | 0 | 0.17 | 0 | (chi) 2.45 |
| Accruals | 0.04 | 0.03 | 0.06 | 0.04 | −4.76*** |
| Conservatism | 0.02 | −0.05 | 0.02 | −0.04 | −0.13 |
| Bonus Materiality | 0.38 | 0.18 | 0.62 | 0.41 | −3.27*** |
| Assets | 39.76 | 18.57 | 13.48 | 6.78 | 3.35*** |
| Institution ownership | 0.17 | 0.14 | 0.20 | 0.18 | −1.43 |
| Sales growth | 0.10 | 0.09 | 0.16 | 0.13 | −4.04*** |

*, **, *** indicate significant using two tailed tests at the 0.10, 0.05, and 0.01 level respectively. The final column presents *t*-statistics (or chi-square) testing the significance of the difference, assuming unequal variances and two-sided tests. The chi-square statistic for *index, interlock, and restatement* have 1 df.
For data definitions see Table 5.

increasing the likelihood of a clawback provision. *Conservatism, restatements,* and *institutional ownership* do not seem to be different between companies with clawbacks and companies without clawbacks.

### 5.2. Model estimates

We estimate Eq. (1) using a logistic regression where the dependent variable is the existence of a clawback or not. Table 8 presents the coefficients and standard errors for each independent variable. Coefficients are always signed to describe an increase in the probability of clawback. At the bottom of the table we report the number of observations in each category, the model chi-square effect of including the independent variables (and associated df), and McFadden's pseudo-$R^2$. In addition, we report the marginal effect of the independent variables. For 0/1 variables, the marginal effect reports the change in probability for a change from zero to one. For continuous variables, the marginal effect reports the change at the average of the independent variable. In all cases, the marginal effect is computed where the remaining independent variables are held at their means. As such, it provides a sense of the economic significance of increasing the independent variable by one unit.

We find that governance in the top third, where *index* is 1, has a higher probability of a clawback than governance in the bottom two-thirds. The coefficient on *index* is positive and significant at conventional levels.[15] This is consistent with the argument that when governance tilts toward a monitoring

[15] No variance inflation index exceeds 1.5 and no condition index exceeds 4.5, so we do not consider multicollinearity to be a problem in this data set.

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**Table 8**
Model estimates for distinguishing clawbacks or not.

| Variable | Coefficients | Marginal effect |
|---|---|---|
| Intercept (std error) | ***−1.73 | |
| | (0.51) | |
| Index | **0.61 | 0.13 |
| | (0.28) | |
| Interlock | **0.79 | 0.15 |
| | (0.34) | |
| Restatement | *0.79 | 0.17 |
| | (0.34) | |
| Accruals | ***−9.01 | −1.80 |
| | (4.05) | |
| Conservatism Factor | 0.20 | 0.02 |
| | (0.34) | |
| Bonus materiality | −0.14 | −0.03 |
| | (0.26) | |
| Assets | ***0.02 | 0.01 |
| | (0.01) | |
| Institutional ownership | −0.35 | −0.07 |
| | (0.96) | |
| Sales growth | −1.83 | −0.36 |
| | (1.40) | |
| Industry indicators | Yes | |
| Clawback/no clawback | 105/236 | |
| Chi-square due to independent variables (df) | ***75.10 | |
| | (14) | |
| Pseudo *r*-square | 18% | |

*, **, *** indicate significant using two tailed tests at the 0.10, 0.05, and 0.01 level respectively.
For data definitions see Table 5.

orientation the company is more likely to have a clawback policy. The marginal effect of 0.13 suggests that, holding other variables constant at their mean, a shift in the *index* from 0 to 1 increases the probability by 13 points. Supposing an average probability of 0.29 when the index is 0, the probability increases to about 0.42 when the index is 1 and all other independent variables are held at their mean. Interpreting the coefficient in terms of odds suggests that the odds of a clawback increases by 84% (exp(0.61)) when *index* moves from 0 to 1, consistent with the odds moving from about 0.41 to 1 up to about 0.75 to 1.

The coefficient on *interlock* is also significant at conventional levels. This is consistent with the argument that members of the compensation committee are affected by their knowledge that other company(ies) with which they are interlocked are developing clawbacks. The marginal effect of 0.15 suggests that, holding other variables constant at their mean, a shift from no interlock on the compensation committee to an interlock, changes the probability by 15 points. Supposing an average probability of 0.29 in the absence of an interlock, the probability is about 0.44 in the presence of an interlock. In terms of odds, a shift from absence of an interlock to presence of an interlock increases the odds from about 0.41 to 1 up to about 0.90 to 1.

Control variables associated with the presence of a clawback include *restatements*, *accruals*, and *assets*. Companies with recent restatements, fewer accruals, and larger are more likely to have a clawback. Recent experience with restatements seem to result in companies adopting a clawback policy, as well as larger companies adopting a clawback policy. Companies with more accruals are less likely to have clawbacks. We take this to suggest that it is the companies with relatively lower information risk that find it easier to adopt clawbacks.[16]

[16] We also investigated whether companies with high growth in accruals were more likely have clawbacks. For this, we regressed the accruals measure on time to find a company-specific measure of average yearly growth in accruals. Adding this average yearly growth in accruals did not improve the aggregate model fit, however, the coefficient on average yearly growth in accruals in Model 1 for Dodd Frank and Different were significant at the 0.10 level.

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**Table 9**
Model estimates for distinguishing among attributes of clawback provisions, the coefficients compare the category to the baseline of no clawback.

| Model | Model 1 | | | | | | | Model 2 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Clawback category | Wald | SOX | | Different | | Dodd Frank | | Wald | Misconduct required | | No misconduct | |
| Variable | 3 df | Coeff. | M.E. | Coeff. | M.E. | Coeff. | M.E. | 2 df | Coeff. | M.E. | Coeff. | M.E. |
| Intercept (std. error) | | ***−3.30 | | ***−2.59 | | ***−2.14 | | | ***−2.46 | | ***−2.08 | |
| | | (0.75) | | (0.76) | | (0.87) | | | (0.59) | | (0.78) | |
| Index (3 level rank) | **8.00 | ***0.98 | 0.11 | 0.38 | 0.02 | −0.01 | −0.01 | *5.55 | **0.72 | 0.12 | 0.26 | 0.01 |
| | | (0.36) | | (0.42) | | (0.61) | | | (0.31) | | (0.50) | |
| Interlock | *7.50 | ***1.52 | 0.13 | 0.35 | 0.01 | −0.28 | 0.01 | **7.05 | ***1.05 | 0.14 | 0.13 | −0.01 |
| | | (0.56) | | (0.47) | | (0.64) | | | (0.40) | | (0.54) | |
| Restatement | *7.66 | 0.26 | 0.01 | **1.11 | 0.08 | **1.25 | 0.02 | *4.86 | *0.72 | 0.11 | 0.86 | 0.04 |
| | | (0.46) | | (0.49) | | (0.63) | | | (4.72) | | (0.56) | |
| Accruals | **8.93 | −8.08 | −0.66 | ***−16.60 | −1.20 | −0.93 | 0.04 | **7.14 | ***−12.58 | −1.93 | −1.94 | 0.03 |
| | | (5.28) | | (6.33) | | (7.15) | | | (4.72) | | (5.90) | |
| Conservatism factor | 1.89 | 0.47 | 0.05 | −0.28 | −0.03 | −0.05 | 0.01 | 1.58 | 0.36 | 0.06 | −0.40 | −0.03 |
| | | (0.40) | | (0.61) | | (0.74) | | | (0.36) | | (0.66) | |
| Bonus materiality | 0.68 | −0.11 | −0.01 | −0.35 | −0.03 | 0.08 | 0.01 | 0.22 | −0.13 | −0.02 | −0.09 | −0.01 |
| | | (0.34) | | (0.49) | | (0.48) | | | (0.28) | | (0.53) | |
| Assets | **9.03 | ***0.02 | 0.01 | ***0.02 | 0.01 | **0.02 | 0.01 | **8.90 | ***0.02 | 0.01 | **0.02 | 0.01 |
| | | (0.01) | | (0.01) | | (0.01) | | | (0.01) | | (0.01) | |
| Inst. ownership | 2.71 | 0.89 | 0.10 | −0.94 | −0.08 | −2.77 | −0.04 | 2.30 | 0.37 | 0.09 | −2.60 | −0.14 |
| | | (1.16) | | (1.49) | | (2.25) | | | (1.02) | | (1.88) | |
| Sales growth | 2.49 | −1.46 | −0.13 | −0.95 | −0.05 | −4.53 | −0.07 | 2.43 | −1.17 | −0.14 | −3.59 | −0.18 |
| | | (1.82) | | (2.10) | | (3.07) | | | (1.55) | | (2.44) | |
| Industry indicators | | | | Yes | | | | | | Yes | | |
| *N* | | | | 51/38/16/236 | | | | | | 81/24/236 | | |
| Chi-square due to independent variables | | | | ***105.03 | | | | | | ***89.04 | | |
| | | | | (42 df) | | | | | | (28 df) | | |
| Pseudo *r*-square | | | | 17% | | | | | | 17% | | |

*, **, *** indicate significant using two tailed tests at the 0.10, 0.05, and 0.01 level respectively.
For data definitions see Table 5.

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**Table 10**
Percentage change in odds of a category from an increase in ***index*** and ***interlock***.

| | Model 1 To clawback | | | | Model 2 To clawback | |
|---|---|---|---|---|---|---|
| From | Different | Dodd Frank | SOX | From | No miscond. | Misconduct |
| Index | | | | Index | | |
| No clawback | 38 | ⟨1⟩ | ***99 | No clawback | 26 | **72 |
| Different | | ⟨38⟩ | 59 | No miscond. | | 45 |
| Dodd-Frank | | | 99 | | | |
| Interlock | | | | Interlock | | |
| No clawback | 35 | 28 | ***152 | No clawback | 12 | ***104 |
| Different | | 7 | *⟨116⟩ | No miscond. | | 92 |
| Dodd-Frank | | | 124 | | | |

This table reports the percentage change in odds for a change in the independent variable in comparison to the other categories. For example in Model 1, holding all other variables constant, a change from zero to one in the variable, ***index***, produces a point estimate of a 99% increase in the odds of a SOX clawback compared to the category of having no clawback. The *** indicates that the point estimate of a 99% increase is significant at the 0.01 level. In addition, holding all other variables constant, a change from zero to one in the variable, ***index***, produces a point estimate of a 99% increase in the odds of a SOX clawback compared to the category of having a Dodd-Frank clawback, but the increase is not significant at conventional levels. This table uses *, **, and *** to indicate significance of two tailed *t*-tests at the 0.10, 0.05, and 0.01 level respectively.

While Table 2 reports that it is the SOX-style clawback that is most common, Table 9 considers whether it is the companies with extreme monitoring orientation that selected the SOX-style, or whether all sorts of governance structures selected SOX-style because it is easy to mimic. In a multinomial logistic regression, the dependent variable for Model 1 in Table 9 distinguishes between *SOX, Dodd Frank, Different,* and *no clawback*. The coefficients describe the increase in probability of that category of clawback compared to *no clawback*.

The Wald statistic in the first column of Table 9, Model 1, is a test statistic of whether all coefficients on *index* are equal to zero, so a significant test statistic suggests that at least one coefficient is not zero. The variable, *index*, has a Wald statistic of 8.00 (3 df), which is significant at the 0.05 level. Inspecting the individual categories, we find that the SOX-category clawback has a coefficient of 0.98 which is significant at the 0.01 level. In addition, the marginal effect for *index* for SOX-style clawbacks has a point estimate of 0.11, that can be interpreted as the probability that a company selects a *SOX* category increases by 11 percentage points when *index* shifts from 0 to 1. The coefficient on *index* is not significant for the other categories, and the point estimates of the marginal effects are close to zero for the other categories. As a result, companies with monitoring oriented governance tend to gravitate toward the *SOX*-style clawback.[17]

In Model 1, the Wald statistic that all *interlock* coefficients is suggestive that at least one coefficient is not zero, and we observe that the coefficient on the *SOX*-style coefficient is significantly different from zero. The marginal effect is 0.13 which argues that a shift from no interlocks to at least one interlock increases the probability of a *SOX*-style clawback by 13 points. The coefficients on *interlock* for the other categories, along with the marginal effects, are not likely to be different from zero.The general sense is that specific knowledge of other companies adopting tends to focus the decision process on adopting, but also selecting the low-risk approach of mimicking the prevailing model.

Model 2 picks out the particular provision, *misconduct*, for examination. The Wald statistic of 5.55 (2 df) suggests that the coefficients on the *index* variable are not all zero, and inspecting the individual coefficients, it is in the *Misconduct* category for which the coefficient on *index* is significantly different from zero at conventional levels. The marginal effect is 0.12, suggesting that a shift to monitoring oriented governance will increase the probability of the company having a clawback that requires *misconduct* as a trigger by 12 percentage points. The coefficient on *index* for the *No Misconduct* category

[17] The sample size for *Different* and *Dodd Frank* are smaller, which may affect our ability to detect a coefficient different from zero. However, we note that the point estimates are closer to zero.

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is not significant. *Interlock* also has a significant Wald statistic, and it is the coefficient on *interlock* for *misconduct* that is significant.

In Table 10 we consider specifically whether the odds of a *SOX*-style clawback increases at the cost of decreasing another category of clawback or whether it comes from the no clawback category.[18] The figures in Table 10 are percentage change in odds for a change in the independent variable. For example, if *index* shifts from 0 to 1, then the odds of a *SOX*-style clawback compared to no clawback increases by 99%. Similarly, the point estimate also suggests that there is a 99% increase in SOX-style clawbacks at the cost of the Dodd Frank-style. However, the estimate of the shift to the *SOX*-style at the cost of no clawback is significantly different from zero, while the increase in *SOX*-style at the cost of *Dodd Frank* style is not significant at conventional levels. Monitoring oriented govenance seems to increase the odds of a *SOX*-style clawback without cannibalizing from other forms of clawbacks.

Turning to the *interlock* variable, if *interlock* shifts from 0 to 1, then the odds of a *SOX* style clawback increases (decreases) by 152% (116%) compared to no clawback (*Different*). This provides evidence that seeing decision making by other managers adopting clawbacks results in shifting from the no clawback style to the extant model SOX-style. The decrease of 116% is our first limited evidence of a shift between clawback styles. It suggests that seeing clawback discussions by other companies results in less mimicking and more independent formulations tailored to the individual situation of the company.

In Table 10 we also consider the shifts between categories for *misconduct* (*no misconduct*) provisions and no clawbacks. A shift in *index* from 0 to 1 results in a shift from no clawback to the *misconduct* category. A shift in *interlock* from 0 to 1 results in a shift from no clawback to the *misconduct* category. Increases in either of these variables of interest increase the odds of a *misconduct* provision at the cost of decreases in the no clawback category and not from shifting out of the *no misconduct* category.[19]

## 6. Summary

Our study investigates the emergence of private contract provisions to recover bonuses made in the event of errant financial statements. Errant financial statements and associated bonuses made headlines and the Council of Institutional Investors argued that companies should report whether they have clawback provisions. In response, the SEC changed Regulation S–K to require the disclosure of clawback provisions or the lack thereof. Some, but not all, companies quickly adopted clawback provisions.

We investigate two hypotheses related to the emergence of these clawbacks. First, that clawbacks emerge when the governance of the company is receptive. We find that companies tend to adopt clawback provisions when the tenor of governance tilts away from management entrenchment and toward a monitoring orientation. The second hypothesis relates to whether members of the compensation committee were exposed to the decision making of other managers developing clawbacks. We find that companies with compensation committee members who have interlocks with other companies adopting clawbacks are more likely themselves to adopt clawbacks.

Not all clawbacks are the same. The most common clawbacks tend to follow the pattern laid out in SOX, while the Dodd-Frank style is the least common. SOX style clawbacks require misconduct to trigger the clawback and target the entire bonus. Dodd-Frank style clawbacks do not require misconduct and target only the excess bonus. We find that our measure of monitoring oriented corporate governance selected SOX-style clawbacks to the near-exclusion of other styles of clawbacks. This argues that companies distinguish between types of clawbacks and that companies with a strong sense of monitoring prefer the SOX-style, where misconduct is a requirement to trigger a clawback.

[18] The odds ratio comparison between categories is also sometimes termed the relative risk ratio.

[19] Our analysis has not investigated the effectiveness of clawbacks in recovering compensation. The effect of clawbacks qua clawbacks can only be investigated following restatements qualifying under a company's particular clawback provisions. As Dehaan et al. (2013) and Chan et al. (2012) report, the presence of the clawback changes subsequent behavior before conditions get to the point of a restatement. The relationship of adoption to implementation, per Zajac and Westphal (1995), Westphal and Zajac (2001), Westphal and Zajac (1998), and Fiss and Zajac (2006) is subject to complex processes.

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The implication for analysts, auditors, regulators, and investors is that the provisions in clawbacks have different contexts for their existence that must be taken into account when considering the effects of clawbacks. In addition, it may be fair to question how clawbacks fit into the governance process given that we find the least innovative clawbacks, SOX-style clawbacks, are the ones strongly associated with a monitoring orientation. Innovative clawbacks that seemingly illustrate more deliberation and require directors with intimate knowledge of decision processes are not associated with our measure of monitoring oriented governance.

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