

## **Piercing the Corporate Veil: The Case for Clawback Provisions**

### **Abstract**

Option-laden executive compensation schemes have been implicated in the rise of managerial rent-seeking behavior at the expense of shareholders and for the weakened link between executive compensation and firm performance. In this study, we investigate the degree to which the embedding of a contractual ex post settling up provision in corporate executive compensation arrangements is an effective corporate governance mechanism that can mitigate this agency problem. Our findings show that the shareholders of firms that institute a recovery feature to claw back executive pay experience statistically significant positive firm valuation consequences. Further, firms whose compensation arrangements are more heavily tilted toward equity-based incentives in concert with previous filings of financial restatements receive the largest economic gains. Our analysis indicates that one of the most important catalysts for instituting a new contractual environment is a previous failure in the internal governance system of the firm. We also find that firms with high growth opportunities refrain from employing the clawback provision, likely due to concerns that it may discourage justifiable managerial risk-taking.

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## **Piercing the Corporate Veil: The Case for Clawback Provisions**

Equity-based executive compensation has long been viewed as a partial solution to the agency problems between shareholders and management—articulated by Jensen and Meckling (1976)—by aligning the interests of the principal and agent. Yet shareholders and financial economists who advocated the use of options in executive compensation to motivate risk-averse managers have not fully foreseen that, under certain circumstances, the solution can create its own agency problems; namely, excessive risk-taking and rent extraction on the part of management, among others. The sizable holdings of equity incentives over the last decade or so has proved to be a double edged sword as it created perverse incentives for managerial conduct that took the form of backdating options, back-door repricing of options, excessive risk-taking, aggressive earnings managements (that can result in financial restatements), and even alteration of financial results to ensure private benefits for executives at the expense of shareholder interests (Yermack, 2001; Bertrand and Mullainathan, 2001; Beneish and Vargus, 2002; Burns and Kedia, 2006). To monitor executives and restrain abuses of managerial power, atomistic shareholders have little recourse other than relying on the power of the board of directors, disciplinary market forces, and legal remedies. These mechanisms, unfortunately, have proven to be far from efficient or effective.

To begin, the corporate board is expected to serve shareholder interests exclusively and its oversight is the primary vehicle for monitoring and disciplining managers. If the board decides not to censure managers for their breach of fiduciary duty, shareholders' next recourse is the disciplinary forces of managerial labor markets, which enforce ex post settling up through revaluation of managerial human capital. However, as evidenced by the large-scale financial reporting scandals, this disciplinary mechanism is not a sufficient deterrent to some managers. Further, even when managerial labor markets are fully efficient, the firm with the offending executive does not stand to gain from the ex post settling up in the labor markets. Rather, the misconduct of its officers damages the firm's reputational capital with

significant costs to shareholders. Despite the costs of ex post settling up in the managerial labor markets, boards have neglected to address this issue until the enactment Sarbanes-Oxley (SOX) Act of 2002 and the recent financial crisis. Additionally, shareholders find it extremely difficult, if not impossible, to seek judicial relief through derivative suits due to a variety of legal restrictions (Bebchuk, Fried and Walker, 2002).

The clawback provision, first stipulated in SOX, has since found its way in the corporate world. Although not a new invention, its increased use by a growing number of firms in the past several years speaks for its newly-found value. We argue that embedding a clawback clause in employment contracts provides a cost-effective ex post settling up mechanism from self-interested managers seeking to enhance personal benefits at the expense of shareholders. Typical compensation recovery provisions entrust the board with discretion to make judgment and request executives to pay back incentives received based on financial statements that are later found to be materially inaccurate or erroneous, thus depriving managers of excess remuneration that deviates from corporate performance. The disgorgement feature creates a new contractual environment that addresses the very agency problems induced by equity-based compensation.

As such, clawback policies have important practical implications in at least three dimensions. First, it may prove to be another good corporate governance tool that adds an extra layer of protection of shareholder wealth. Corporate governance is generally defined as a series of economic and legal mechanisms that protect investors from expropriation by corporate insiders. The clawback clause, albeit applied retroactively, provides the legal basis for, and contractual commitment to, forcing executives to regurgitate whatever they are not entitled to. Without a recovery feature, a firm that restates its financial statement downward whether due to non-compliance, fraud or otherwise, effectively transfers wealth from shareholders to managers, a testimony to a lack of effective corporate governance system. To the extent that a clawback clause is an ex post settling up mechanism in corporate governance, it also can deter managers from excessive risk taking and rent extraction ex ante.

Second, a clawback clause serves as a yardstick of the “pay-for-performance” principle, which is central in executive compensation. To the extent that managers manipulate the financial statements to

extract higher rewards, the link between executive compensation and firm's performance becomes weaker. When a restatement adjusts corporate financial achievements downward, compensation to executives based on inflated earnings constitutes rent and should be returned to make good on unmet promises to shareholders. Corporate clawback policy can rectify what appears to be a disconnect between executive pay and performance by removing distortions in executive pay and increasing managerial accountability.

Third, a disgorgement mechanism provides for optimal contracting. Admittedly it is neither possible nor practicable to design complete contracts that can predict all future contingencies. However, it is clear that the current incentive contracts, which base incentives on performance outcomes that can be manipulated, have proven to be far from optimal in certain situations. Explicitly incorporating a recovery mechanism in executive contracts plugs a loophole in managerial compensation and offers more complete contracts—a remedy that is "... beautiful in its simplicity, and it's also beautiful in its justice."<sup>1</sup>

In addition, clawback policies can help ameliorate any information asymmetries that result from earnings manipulation. Investors have called for such incentive recoupment rules to become "more standard and customary" at public corporations and corporate governance experts term this feature an essential component of "best practice" in the design of executive compensation packages. Despite all these, clawback is not short of opponents, who argue that requesting executives to remit their compensation will dampen managerial risk-taking necessary for firms' growth, and predict that it will have an adverse effect on attracting qualified executives and retention of talented managers.

An empirical question, therefore, is whether and how embedding clawback clauses bring about benefits to shareholders. In this paper, we investigate the capital market consequences of clawback provisions, and the degree to which this ex post settling up mechanism serves as an extra layer of protection of investors' interests. We also address the question of which type of firms are the more likely

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<sup>1</sup> See Justin Fox, 2009, Economy Cleanup: Clawback to the Future. In this article, environmental lawyer E. Michael Thomas was quoted by the Time magazine on the possible use of clawback for "financial polluters," saying "It's beautiful in its simplicity, and it's also beautiful in its justice."

beneficiaries of this new contracting environment. We identify an array of factors that could lead to greater shareholder benefits. A related question that we tackle in this study concerns the determinants of the choice to opt for this new contracting feature. We investigate a number of firm characteristics and corporate governance features to identify which factors are more conducive to adoption of a clawback provision. From a policy perspective, this study advances our understanding of the usefulness and value of this new corporate governance mechanism as another tool in the corporate boards' toolkit.

The research question in this paper should also be of interest to policy makers and financial market regulators. If clawback policy limits abuses by executives and enhances shareholder value, a cogent argument can be made to extend the application of SOX to private parties. To the extent that the Securities and Exchange Commission (SEC), in its efforts to enforce the SOX statute, is unable to target all cases whether by choice or due to resource constraints, extending the application of SOX to private parties should allow shareholders to legally sanction their firms' executives and remedy their situation through the legal system.

Using hand-collected data for 270 firms with specific dates for adoption of clawback provision and stock return data, we document a significantly positive capital market response for various windows surrounding the adoption of a clawback feature. The mean risk-adjusted return ranges from 0.95% to 1.94% depending on the event window used, indicating that this new contracting technology conveys new information to market participants. In essence, the market views direct contractual features for recovery of executive compensation as an effective approach to curtail rent-seeking behavior by managers and as a promising mechanism for more complete contracting. Our findings can be viewed as endorsing the recent efforts of corporate governance policy advocates to curtail executive power by enhancing accountability.

We also investigate the value implications of the incidence of a financial restatement prior to the decision to embed clawback provisions in compensation contracts. Previous research documents that the occurrence of a financial restatement causes substantial wealth losses to shareholders and reputational costs to the firm (see for example, Hribar and Jenkins, 2004; Anderson and Yohn, 2002; Palmrose, Richardson and Scholz, 2004). In addition, researchers have shown that the probability of restatement is

associated with managerial compensation schemes (Burns and Kedia, 2006). Based on this evidence, we posit that firms that have previously succumbed to a financial restatement are expected to experience a higher market valuation response because the decision to strengthen corporate governance through this feature sends a signal to the markets that the board is serious about redressing past failures in internal controls. In support of this argument, we document a 4.11% abnormal return for (-10, +5) event window for firms that previously restated reported earnings compared to 0.89% for non-restating firms. The combination of findings related to firms misreporting earnings provides incontrovertible evidence that the largest beneficiaries from the clawback provision are firms with compromised reputational capital. Offering what could be termed as a “quick governance fix” to firm’s reputation prompts shareholders to reassess the agency costs stemming from lack of integrity in the financial statements.

In multivariate regressions that explain cumulative abnormal returns, we find that even though none of the three types of clawback triggers that can be used to effect the recovery of paid incentives is superior, firms that restate their earnings gain the most from implementing the fraudulent trigger, suggesting that investors value the fraud deterrence feature because fraud cases, as opposed to those involving “material” restatement, are more enforceable in the courts.

Recoupment features are especially advantageous to restating firms whose executives are compensated with high equity pay structures. Such firms experience gains that are three times as much as those that do not restate, highlighting the need for a direct contractual recovery feature to mitigate the effects ascribed to agency costs of compensation. We reason that shareholder gains should be greater when influential CEOs are at the helm of corporations that misreported earnings since such CEOs are more likely to have exploited the compensation structure for personal gain. Supporting this conjecture, we find that investors view more favorably the adoption of the disgorgement clause at such firms with unprincipled and entrenched CEOs. We also document that shareholders in smaller firms systematically gain more from the recoupment policy supporting the notion that larger firms are exposed to more diligent scrutiny from capital market forces and financial analysts. In sum, our empirical evidence strongly supports the view that instituting contractual ex post settling up in executive compensation arrangements

protects shareholders and enhances the value of the firm, particularly those that have previously suffered from failure in their internal monitoring system.

Taking up clawback provisions is ultimately at the disposal of the board of directors. To investigate which firms are more likely to institute a recapture policy, we conduct multivariate logistic analysis exploring various cross-sectional firm characteristics. Our findings provide some insight into the determinants of a new contracting environment in the firm. First, our findings reveal that restatement of earnings almost doubles the odds of firms' adopting recoupment policies, indicating that restating firms take action, either voluntarily or under shareholder pressure, to minimize the negative ramifications on firm reputation.

Second, firms with high growth opportunities have a lower incidence of clawback adoption, indicating that this contracting feature may not serve all firms equally well. The fact that boards at high growth potential firms are reluctant to implement a clawback clause can be due to costs imposed by clawback, namely, discouraging managers from justifiable risk-taking crucial to the execution of the firm's strategies. Further, we find that even though the incentive-based executive compensation itself does not prompt boards to institute a recapture policy, disproportionately high equity incentives coupled with high growth opportunities lead to lower probability of adoption.

Third, in testing the implication of the CEO's influence on the likelihood of adoption, we document that higher CEO turnover and lower job tenure are associated with a higher probability of instituting a clawback feature. The evidence supports the view that the more influential the CEO is, the less likely is the board to act in ways that test the CEO's power; conversely, boards find it easier to make contractual changes to executive compensation when the person who occupies the corner office is new or when CEO job tenure is short. Fourth, investigation of relevance of the board's structure to the likelihood of adopting a clawback policy reveals that board independence is the only board attribute that is systematically related to adoption. Overall, our findings provide a better understanding of the determinants of a new contracting environment in the firm—boards embrace ex post settling up when

CEOs are less powerful, the board is independent and when firm's reputational damage from previous failures in internal monitoring systems is in need of urgent repair.

Our research contributes to the literature in three ways. First, our results add to the literature on the agency costs of executive compensation by showing that a new contractual technology can alleviate perverse incentives stemming from high levels of equity compensation. Second, this study also advances the literature that examines the relation between decision-making of independent boards and firm value such as when in negotiations for target firm premiums (Cotter, Shivdasani, and Zenner, 1997) and providing higher financial disclosure quality (Karamanou and Vafeas, 2005). Our results highlight the importance of independent boards to adopting this contractual technology that improves the quality of the pay-setting process in public corporations. Finally, our empirical evidence also extends the literature that deals with financial misreporting by providing evidence that clawback clauses can diminish the information asymmetry gap arising from lack of credibility in the firm's accounting practices documented by Hribar and Jenkins (2004), Anderson and Yohn (2002) and Palmrose, Richardson and Scholz (2004).

Our paper proceeds as follows. Section I reviews the history and evolution of clawback provisions. Section II provides a review of the relevant literature and formulates our research questions. Section III details the construction of our sample and describes sample firms. In Section IV, we report empirical findings on how clawback provisions impact shareholder value and analyze the influence of a number of corporate governance issues on the market reaction to adoption. Section V investigates which firms are more likely to choose this provision. Section VI concludes the paper.

## **I. Background of Clawback Provisions**

### *A. Historical perspective*

The SOX Act endowed the SEC with the authority to seize payments from top corporate executives. Under SOX Section 304 statutory provision, the CEO and CFO of a company must reimburse the company for any bonuses or incentives received in the year prior to filing a restatement of earnings that is a result of misconduct. Further, in a recent adjustment to Regulation S-K, SEC directed

compensation committees to disclose their policies regarding recovery of bonuses in the aftermath of financial restatements.

It is important to emphasize that SOX Section 304's only trigger to recoupment is financial restatement caused by misconduct. One of the objectives of the SOX statute was to enlarge and strengthen corporate accountability and to provide a remedy to corporate governance abuses by giving enforcement powers to the SEC. Opponents of the inclusion of clawback clauses in corporate executive compensation contracts point out that Section 304 addresses the issue fully. However, the statutory language of SOX Section 304 reveals several ambiguities, foremost of which is whether Congress intended SOX 304 to provide for a private right of action or whether it is intended solely for enforcement by the SEC.<sup>2</sup> In 2005, in *Neer v. Pelino*, the court determined that only the SEC can enforce SOX 304.<sup>3</sup> Thus, SOX Section 304 serves as external form of monitoring since its enforcement is limited to the government. Feroz, Park, and Pastena (1991) assert that the commission does not target the full set of non-compliant firms but rather ranks targets according to the probability of success. Since the SEC has more targets than it can practically litigate, an in-house formulation of SOX, namely the corporate clawback policy, is necessary for shareholders to pursue wrongdoing by firm's executives.

In the immediate aftermath of SOX, company boards did not enact their own clawback policies. Shareholder proposals put forth by institutional investors began the trend in 2004 when Amalgamated Bank's Long View Fund filed a shareholder proposal at Computer Associates. Since then, only a small number of proposals were put to vote, the majority of which were voted down.

The 2007-2008 financial crisis resulted in Congress, the Treasury Department and the Federal Reserve Bank scrutinizing executive compensation contracts at financial firms. With the Emergency Economic Stabilization Act of 2008 and later the American Recovery and Reinvestment Act of 2009,

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<sup>2</sup> Other ambiguities surrounding SOX 304 revolves around the meaning of the term "misconduct" and whether SOX 304 can be triggered by the misconduct of any corporate employee, or only by misconduct on the part of a CEO or CFO.

<sup>3</sup> The SEC did not utilize the SOX statute until 2007 in *SEC v William W McGuire* and in more recent months has begun to more aggressively pursue executive misconduct.

clawback policies were formulated and crammed down on companies in the financial sector that were recipients of federal bailout funds through the Troubled Asset Relief Program (TARP). Under most TARP-induced clawback provisions, firms receiving government aid were required to seek back incentive compensation that was based on materially inaccurate financial statements or materially inaccurate performance metric criteria. The mandated provisions also prohibit golden parachutes and put limits on executive compensation that results in excessive risk-taking and threatens the value of the financial institution.

Unlike the SOX clawback provision, the trigger for financial institutions using government bailout funds is not tied to a financial restatement. Instead, they are tied to financial statements that are later found to be materially inaccurate but not necessarily due to misconduct or fraud. Thus, TARP-induced clawbacks expanded the clawback trigger by including not only fraud or misrepresentation but also financial statements that are found to be simply inaccurate. Further, in contrast to SOX statute, the TARP rules apply clawbacks to senior executives and the next 20 most highly compensated employees.

The impact of the financial crisis on corporate governance is described succinctly in a November 2009 blog by the Conference Board which states: “Thanks to actions taken by the G-20 at its Pittsburgh Summit in September and the U.S. Treasury’s special pay master last month, the term “clawback” will reverberate throughout the board rooms of companies worldwide in 2010. While it’s certainly not a new idea, the financial crisis has led some companies to institute such policies for poor performance or irresponsible risk-taking that go beyond the disgorgement rules of the Sarbanes-Oxley (S-O) Act.” The inclusion of executive compensation recovery policies in the G-20 newly approved Financial Stability Board principles for sound compensation practices puts further pressure on companies globally to modify their compensation design to effect fairness to shareholders.

### *B. The crafting of clawback provisions*

To draft a clawback provision, companies have to decide on a number of issues: (a) what situations to cover—referred to as the clawback trigger, (b) how deep within the firm to apply the

policy—i.e., which employees are subject to clawback, (c) which components of compensation are subject to recapture, (d) how far will the firm reach back in time in its attempts to recoup executive incentives and (e) whether to create a bonus bank that allows the firm to hold bonuses in escrow accounts for a period of time. The bonus bank feature empowers the firm to avert the recoupment of incentives that have already been spent.

The conditions, or triggers, upon which the firm can reclaim executive incentives vary from one provision to the next. Some specify that executive incentives will be retrieved due to unethical conduct while others indicate that bonuses will be rescinded when a firm restates its financial numbers. The identified triggers of clawback provisions that would allow the firm to rescind awards granted to executives are: a) a clawback that applies in cases where fraud or misconduct are severe enough to lead to a restatement which is referred to as a fraudulent trigger; b) a recovery policy that recoups incentive payments when they are based on inaccurate financials that lead to material financial restatement, classified as a performance-based trigger; and c) a clawback clause with a “non-compete” trigger which requires the remittance of bonuses and awards from an executive, within a certain period of her voluntary resignation or termination for cause, if such executive participates in competition with the firm or other activities that are deemed detrimental to the firm’s interests.

To illustrate, consider Consec’s policy, which incorporates strong language with regard to recoupment and focuses on executive misconduct and not on performance measures. “Our LTIP (long term incentive plan) contains a clawback provision relating to our long-term equity awards: stock options, performance shares and restricted stock awards. Under this claw back provision, if our financial statements are required to be restated as a result of errors, omissions, or fraud, the Committee may, at its discretion, based on the facts and circumstances surrounding the restatement, direct the recovery of all or a portion of an equity award from one or more executives with respect to any fiscal year in which our financial results are negatively affected by such restatement. To do this, we may pursue various ways to recover from one or more executives: (i) seek repayment from the executive; (ii) reduce the amount that

would otherwise be payable to the executive under another Company benefit plan; (iii) withhold future equity grants, bonus awards, or salary increases; or (iv) take any combination of these actions.”

Conseco’s provision illustrates that a) the trigger is misconduct of executives that results in a financial restatement, b) the provision applies to the firm’s executives, although it is not clear if it is top five or deeper, c) it identifies the components of compensation that are subject to recapture, namely equity awards, d) it specifies any fiscal year when a restatement occurs as the reach back period to recover incentive, and e) although it does not create a bonus bank, it asserts that recoupment could be achieved through withholding of future pay.

While some clawbacks are as specific as Conseco’s, some are sketchy and vague, essentially giving the board the ability to act. An example of that is Bed, Bath & Beyond’s policy stated in its proxy statement as “The Board adopted a policy as part of the Company’s corporate governance guidelines on the recovery of incentive compensation, commonly referred to as a “clawback policy,” applicable to the Company’s named executive officers (as defined under Item 402(a)(3) of Regulation S-K).”

Inspection of the provisions for our sample firms indicates that in provisions that provide detailed information, the policy requires executives to forfeit and remit some or all of the following forms of incentives: cash bonuses, option and stock grants, any profits obtained from sale of stocks, or gains made on exercises of options within the designated clawback period. Although the timeline of how far back a firm can reach back is not specified in many provisions, most firms who chronicle a specific reach-back period stipulate 12 to 24 months and occasionally up to 36 months. Additional examples of each type of trigger are provided in Appendix A.

## **II. Literature Review and Hypotheses**

In this section, we review the background literature and formulate hypotheses linking capital markets’ response to the adoption of clawback policies. In a later section, we present our predictions regarding which firms are more likely to opt to embed a recovery clause in compensation contracts. As discussed earlier, the SOX statute is narrow in its influence and scope as it applies only to fraudulent

triggers and to the CEO and CFO only. Moreover, the court's rulings in *Neer v Pelino* limited the enforcement of SOX to the SEC, virtually denying shareholders legal recourse. Since the SEC does not target all non-compliant firms, the reach of SOX and SEC enforcement will not ensure redress in most cases of executive ill-gotten rent-extraction. We argue that instituting a recovery policy gives the board the ability to rectify any wrongdoing without the shareholders having to incur any legal costs. Absent a recapture feature and in the presence of rent-seeking behavior, for the shareholders to challenge a board's lack of action, they would have to first request the board to support their demands from offending executives, and if such a request is rebuffed, they can then proceed to sue derivatively. In which situation, the shareholders would have to demonstrate malfeasance by the board and executives, and that they had "violated duty of care, committed 'waste', or breached duty of loyalty." Historical evidence shows that it is generally difficult to prove any of these violations. Moreover, shareholders of firms without a recovery feature would have to litigate based on the equitable doctrine as opposed to contractual law where they have to rely on the concept of fairness.

Common law countries generally espouse the principle of separate and distinct personhood of the corporation from its executives and directors. As a result, the courts have generally deemed corporate executives to be personally protected from litigation. To be able to sue corporate executives and demand restitution based on compensation contracts is referred to as "piercing the corporate veil (or shield)." The piercing of the corporate veil is possible in exceptional situations such as when the shareholders can demonstrate that executives have committed fraud or malfeasance. Shareholders invoking a contractually embedded clawback feature will find that litigation against executives is more enforceable—essentially facilitating the piercing of the corporate veil. Since it is more onerous to demonstrate that executives are personally responsible under equitable principles, the legal costs incurred could be higher. Thus, specific contracts substantially increase the leverage of shareholders to sue derivatively and recover executive incentives.

Optimally, it would be most cost effective if the firm also initiates a bonus bank or escrow account through which part of executive incentives are held. This would allow the firm to avert having to

go after executives for monies already spent, hence reducing the costs of the recoupment process. However, this feature is not common in non-financial firms perhaps because a greater portion of incentives is in equity form—which are unexercisable when granted. In our sample, we do not observe the bonus bank feature in any of the clawback clauses except for one firm. In sum, the benefit of contractual ex post settling up is composed of (a) a higher likelihood of being able to recoup executives' ill-gotten gains, (b) a lower likelihood of the need to litigate as the board can remedy the situation and (c) if the shareholders have to go to court, the costs of litigation is expected to be lower. Based on these arguments, the valuation consequences to shareholders are expected to be positive. We refer to this hypothesis as the *Contracting Hypothesis*.

*H<sub>1</sub>: The valuation consequences to shareholders from embedded clawback clauses are expected to be positive because the contractual aspect of the clause will reduce expected costs of litigation to shareholders.*

According to the Government Accountability Office (GAO), the number of financial statements during 2002-2006 four-year period is nearly double the corresponding number for 1997-2001 period. More importantly, it is seldom that those responsible for the high frequency of financial restatements are penalized for their breach of the duty of care or duty of loyalty (fraud and misconduct) in the aftermath of the incidences (Bebchuk, Fried and Walker, 2002; Srinivasan, 2005). Examining the impact of financial restatement on outside directors, Srinivasan (2005) finds that only a few cases of financial misreporting give rise to lawsuits or cause the SEC to seek penalties against those directors. Karpoff, Lee and Martin (2008) document that penalties imposed on misreporting firms through the legal system are small compared to losses suffered by shareholders due to a decline in firm's reputation.

Examining firms charged with violations of Generally Accepted Accounting Principles (GAAP), Johnson, Ryan and Tian (2003) find evidence that executives of such firms receive higher equity-based incentives.<sup>4</sup> Although Healy and Wahlen (1999) conclude from a review of the literature on capital

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<sup>4</sup> In addition, a number of past studies have also documented that managers 'game' the capital markets. For example, firms use earnings management to boost the firm's stock price (Collins and Hribar, 2000), and to obtain lower cost financing (Dechow, Sloan and Sweeney, 1996). Other work has shown that managers inflate earnings prior to initial and seasoned equity offerings (Teoh, Welch and Wong, 1998; Shivakumar, 2000), stock-financed acquisitions

market consequences of earnings management that investors are “not fooled,” the fact remains when earnings management’s purpose is to manipulate bonuses, the firm is in essence “fooled” to the extent that executives retain the ill-gotten compensation.

Extensive management of earnings and financial reporting violations are profoundly dramatic to the firm as they are accompanied by a significant decline in firm value<sup>5</sup> (Anderson and Yohn, 2002; Li, Pincus and Rego, 2008). The large adverse capital market reaction to restatements caused by accounting irregularities suggests that investors lower their expectation of future earnings. Previous research also documents that financial restatements are associated with increase in the firm’s cost of capital (Hribar and Jenkins, 2004), increase in bid-ask spreads (Anderson and Yohn, 2002), and rise in analyst earnings forecast dispersion (Palmrose, Richardson and Scholz, 2004), all consistent with the notion that restatements increase uncertainty about the credibility of managers and inflict losses in firm’s reputational capital. Further, companies with restatements face increased uncertainty over the firm’s accounting practices and the efficacy of its board’s ability to monitor management. The lack of credibility widens the information asymmetry gap between investors and managers. Based on these adverse consequences after a restatement, we predict that firms that misstated their earnings prior to the adoption of a clawback policy are expected to experience higher market valuation responses because the decision to incorporate this measure of corporate governance sends a signal to the markets that the board is serious about rectifying the situation. This leads to our second hypothesis, which we refer to as the *Information Asymmetry Hypothesis*.

*H<sub>2</sub>: Firms that filed a financial restatement preceding the clawback adoption are more likely to experience a positive market reaction.*

Equity-based executive compensation has been designed to ease the conflict of interest between managers and shareholders, thus reducing the agency cost and advancing shareholder value. Smith and

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(Erickson and Wang, 1999) and prior to management buyouts (Perry and Williams, 1994).

<sup>5</sup> Li, Pincus and Rego (2008) report that stock market reaction to SOX’s power in constraining earnings management is positively and significantly correlated with the extent to which shareholders can anticipate earnings’ management.

Watts (1992) provide evidence in support of the use of incentive compensation to induce risk-averse managers to take actions that risk-neutral principals would like them to take. The extensive use of options grants, particularly in recent years, ties executive welfare more closely with firm performance. Consistent with Baber, Janakiraman and Kang's (1996) argument that market-based hard-to-manipulate measures should be used when awarding incentives to CEOs, Parrino, Poteshman and Weisbach (2005) find that options are more effective than restricted stock in inducing better risk-taking behavior. Specifically, they find that awarding in-the-money options make managers more risk averse compared to options issued at or out-of-the-money. The asymmetric payoff provided by options compensation appears to work better in inducing risk-averse managers to take more risks than they would otherwise.

In contrast, other research has demonstrated that high equity-based compensation can lead to manipulation of earnings. A number of studies find evidence that managers opportunistically manipulate earnings (as captured by accruals) to influence their bonuses (Healy, 1985; Guidry, Leone and Rock, 1999) and to gain from insider sales of shares (Beneish and Vargus, 2002). While Bergstresser and Philippon (2006) report that earnings management is more pronounced in firms where a large fraction of CEO compensation is tied to the value of stock and option holdings, Burns and Kedia (2006) provide evidence that the CEO option portfolio sensitivity to stock prices is linked to accounting misreporting. Dechow, Huson and Sloan (1994) and Gaver and Gaver (1998) find that executives are protected from downside losses while maintaining upside gains in the presence of equity-based compensation.

Taken together, there is an interesting tension in the utility of equity-based executive compensation. On the one hand, it aligns the principal-agent interest and reduces agency cost, while on the other, it has been shown to be associated with more agency problems. We posit that equity-based compensation has the intended effects of attenuating the agency-principal problem since stock incentives per se do not necessarily mean there is an agency cost of compensation. Rather, it is the overuse and abuse of equity-based compensation schemes by top executives which manifests in agency costs. We therefore predict that high equity-based compensation in concert with certain other factors is likely to produce perverse incentives for managers to exploit and expropriate wealth from shareholders. For

example, if the CEO has a track record of misrepresentation in financial statements, and is enjoying high levels of equity-based compensation, shareholders are potentially exposed to wealth expropriation. Likewise, when disproportionately high equity-based incentives are coupled with high managerial power, the need for effective checks and balances becomes crucial. This leads to our third hypothesis with two formulations that incorporate two conditions that contribute to the agency cost of compensation. We refer to this hypothesis as the *Agency Cost of Compensation Hypothesis*.

*H<sub>3a</sub>: Clawback provisions are more beneficial in compensation contracts that have a greater proportion of equity-based compensation coupled with a previous event of financial misreporting.*

*H<sub>3b</sub>: The greater the tilt toward equity compensation arrangements and the more influential is the CEO, the more severe is the agency costs of compensation, and hence, the more advantageous is the inclusion of contractually embedded clawback to shareholders.*

### **III. The Data**

#### *A. Sample construction*

We initially identify 486 non-financial firms that adopted the clawback provision during 2005 to 2009 period from The Corporate Library. The Corporate Library data includes all firms in the Russell 3000, S&P 1500 and Fortune 1000 firms that mention a clawback policy in their financials. We limit our sample to non-financial firms because the majority of firms in the financial sector acquired the provision due to government mandate delineated in Economic Recovery Act in return for accepting TARP assistance. Furthermore, the rules that apply to financial firms receiving financial assistance from the Treasury Department include additional provisions and limitations on the firm (such as limits on pay) apart from the clawback clause.

To identify the exact date of adoption, we search SEC Edgar database to identify the earliest financial statement in which the description of the new policy appears. We use search words such as “clawback,” “forfeiture,” “recoup,” and “recover” in the first pass. In a second pass to identify remaining firms, we utilize additional terms such as “misconduct,” and “restatement,” among others. We manually check multiple financial statements to ensure the first mention of clawback provision. We then review

each statement to collect specific information on the provision such as the type of triggers it covers. Then, we apply the usual filter of availability of data on the CRSP Daily Master File. Next, we search Lexis-Nexis Academic Universe Business News to eliminate firms with confounding events around the event date. This yields a sample of 270 firms with specific event dates and stock return data for the event study. The overwhelming majority of clawback adoptions (226) are announced through DEF 14A proxy statements. Only about 16% of our clawback adoption dates are based on 10-K, 8-K or 6-K filings.<sup>6</sup> Inspection of the filing statements allows us to identify 18 specific dates on which the board approved the adoption of the provision.

Next, we require that sample firms to have non-missing information on all financial values needed for our analysis. The financial information, executive compensation and corporate board characteristics must be available in Compustat, ExecuComp database and The Corporate Library database respectively. The ExecuComp database includes the S&P 500, Mid-Cap 400 and Small Cap 600, together comprising what is known as the S&P 1500. Thus, our sample essentially consists of S&P 1500 firms with non-missing financial information. The firms in ExecuComp comprise approximately 80% of the market capitalization of U.S. firms. The sample that meets our data requirements is composed of 285 firms which we refer to as “full” sample. We note that although there is a great overlap between both samples described above, there are firms with stock price data and event dates that are not in the full sample and vice versa.

Table 1, Panel A displays the frequency distribution by year for both samples. Our sample shows that boards of directors elected to adopt clawback provisions of their own accord beginning in 2005.<sup>7</sup> The

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<sup>6</sup> Studies by Linn and McConnell (1983), DeAngelo and Rice (1983) and Jarrell and Poulsen (1987), to name a few, consider the impact of antitakeover charter amendments using proxy date as their event date.

<sup>7</sup> Examination of financial statements for our sample indicates that only four firms mention shareholder proposals demanding inclusion of recoupment policies. Generally, these firms argue against the proposals (Wal-Mart Stores, Allegheny Energy Inc., Bristol-Myers Squibb and Honeywell International). One firm in our sample, Dell, instituted a recapture feature before the shareholder proposal got to a vote. In another case, the company reveals in its financial statements receiving letters from shareholders requesting the firm to endorse a clawback statute (not a shareholder proposal) in 2005, which was not taken up until 2009.

trend to adopt does not gather steam until 2007, perhaps because of the unfolding of the financial credit crisis. Each of years 2007, 2008 and 2009 garner approximately 27%, 27% and 34% of clawback adoptions respectively.<sup>8</sup> Nearly half of our sample (47%) comes from the S&P 500 Index indicating that early adopters tend to be larger firms. In Panel B, we report the distribution of firms by industry. The highest frequency of adoption of the clawback feature occurs in the retail (14.4%) and services (12.3%) industries, followed by electrical equipment, chemical and machinery industry sectors. These five industries account for about half the sample.

### *B. Sample description of triggers*

In this section, we tabulate the sample firms in terms of the three types of provision triggers, namely, fraudulent trigger, performance-based trigger and non-compete trigger. Table 2, Panel A catalogues the breakdown of occurrence of these triggers. While 79.0% of the firms elect to adopt the performance-based trigger, and 63.9% endorsed the fraudulent trigger, only 21.1% of the firms included the non-compete provision. Panel B tabulates the frequency of triggers to indicate the different combinations of triggers adopted since many provisions encompass more than one trigger. The frequency distribution in the panel reveals that 43.5% of the firms incorporate only one of the triggers in their policy. The remainder of the sample firms (56.5%) implements a package of two or three triggers with 7.4% of the firms choosing all three triggers. Even though the performance-based provision is considered superior because it allows for rescinding of incentive compensation based on erroneous financial information—whether that is the result of fraud, misconduct, or otherwise, 44.6% of the firms chose to include both fraudulent and performance-based triggers. In Panel C, we document the evolution in the usage of different types of triggers over sample period. The results show that while the performance-based trigger usage has hovered around 80% during most of the sample period, there has been a distinct

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<sup>8</sup> This trend is not due to shareholder proposals as only 22 companies were targeted with such proposals between January 2004 and June 2008. Most of these were voted down with the average votes cast in favor of the proposals ranging from 10.7% in 2008 to 28.4% in 2007.

rise in the use of the misconduct trigger from a 42.9% of 2005 provisions to 65.3% of 2009 provisions. Finally, there is no discernable trend with the use of the non-compete trigger; for three (two) out of five sample years, the non-compete trigger was incorporated in about 30% (15%) of instituted provisions.

Although clawback clauses are usually clear on the triggering event, most are ambiguous on who is subject to clawback, allowing the board full discretion to decide at the time who should forfeit their compensation and how much. While most companies have extended the provision to other executives beside the CEO and CFO, it is interesting to note that three firms in our sample extended the clawback provision to apply to outside directors, not just company executives and employees.

## **V. Empirical Findings on Capital Market Consequences**

### *A. The event sample*

In this section, we test whether this new governance mechanism conveys new information to market participants and whether the market views clawbacks as an effective approach to restrain rent-seeking by managers. We utilize the standard market model methodology to estimate the abnormal return around the date of adoption of clawback provisions. We obtain excess returns for various event windows where the event day is represented with 0. Table 3 documents excess returns for various event windows and event dates for 270 firms with established event date. Panel A reports the excess returns using filing statement date as the event date.

Consistent with the *Contracting Hypothesis*, our results indicate a significantly positive capital market response for various event windows surrounding the proxy statement date that reports the adoption of clawback feature. The mean risk-adjusted returns, which are statistically significant, range from 0.95% (p-value of 0.08) for event window (-5, +2) to 1.94% (p-value of 0.01) for event window (-10, +5), indicating that the clawback feature elicits a favorable market response. Annualizing this excess return translates into an economically significant 38% annually. We also observe a significant abnormal stock response in (-50, -10) window with a 2.39% (p-value of 0.04) slightly higher in magnitude to results for (-10, +5) event window. The large excess return for the earlier event window reflects the seeping of the

information related to the adoption prior to the filing date of the financial statement. Essentially, the cumulative abnormal return adds up to 4.33% over the 60-day trading period (-50, +10). Our empirical evidence strongly supports the notion that embedding an ex post settling up feature in executive compensation contracts reduces shareholder expected litigation costs. Further, it also implies that shareholders invoking a contractual clawback feature will find that litigation against executives is more enforceable—allowing them to pierce the corporate veil that protects corporate executives from personal culpability. Our findings can be viewed as endorsing the recent efforts of corporate governance policy advocates to curtail executive power by enhancing accountability.

For robustness check, we replace the filing event date with the board approval date whenever the latter is available and recalculate the excess returns for various event windows. Our results in Panel B of the table are robust to this specification of the event date in terms of magnitude of the announcement effect and significance. One concern with the use of filing event date is that some of our sample firms announce their adoption of clawback policy in their 10-K, 8-K or 6-K statements which could include material financial information that may “contaminate” our empirical results. Given that a significant portion of our sample period overlaps with a major economic downturn, any surprises in the financial statements are more likely to be of a negative nature. Hence, inclusion of firms with such financial statement filing date, if anything, should bias our results against finding a positive stock price response to the adoption of the clawback policy. Nonetheless, to address this issue, we exclude the firms with 10-K, 8-K or 6-K filing event date and recalculate the excess stock returns as shown in Panel C. Consistent with our expectation, there does not appear to be any qualitative difference in terms of economic or statistical significance of excess returns.

#### *B. Univariate analysis of valuation consequences*

In addition to examining the economic relevance of clawback adoptions for the whole sample, we also conduct univariate analysis to measure the value implications of (a) the types of clawback trigger, (b) the previous occurrence of a financial restatement by the firm prior to adoption, and (c) executive

compensation structure. To preliminarily test the relevance of clawback triggers, incidence of financial misreporting and levels of equity incentives, we partition the sample of firms based on: a) the provision's trigger, b) whether the firm restated its financial earnings in the year prior to instituting the recoupment feature, and c) the equity-based compensation as a fraction of total CEO pay.<sup>9</sup> Panel A of Table 4 highlights the gains to shareholders for two windows (-5, +5) and (-10, +5) based on the three possible provision triggers. The results reveal that the capital markets view the performance-based and misconduct triggers as value enhancing to shareholders while excess returns associated with non-compete trigger are not statistically significant. Interestingly, provisions with a misconduct trigger are associated with a higher excess return, 2.46% (p-value 0.03), than provisions with performance-based trigger, 2.18% (p-value 0.02), although the difference is not statistically significant.

Panel B of the table reports the capital market consequences based on whether sample firms filed a financial restatement in the four years leading to the adoption of the clawback feature. We obtain information on financial restatements from Auditor Analytics database. About a third of our sample firms have experienced at least one financial reporting failure during that four-year period. Of those firms, 10.58% misreported three times or more, 24.71% two times and the remaining two thirds (64.71%) only once. The data reveals that, based on excess returns over (-10, +5) window, the subset of firms that report financial restatements earn a significant and substantial excess return of 4.11% (p-value 0.02) while the gains to firms that did not report earnings restatements is 0.89%. The difference between the two categories of firms is statistically significant. The economic relevance of this policy to restating firms is quite large which translates into an annualized excess return of 96%.

We also redo the analysis for firms that restate their financials over six years preceding clawback adoption and find similar results. More specifically, the excess return of restating firms is a significant 3.51% versus 1.05% for non-restating firms (untabulated). In this instance, nearly 42% of the firms have restated their financial earnings. This evidence of large significant abnormal returns even when the

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<sup>9</sup> The results in this table and the remainder of the paper are qualitatively similar when excess returns are calculated used adoption/filing dates as the event date.

incidences of misreporting occurred up to six years earlier underscores the long memory of investors and lingering reputational challenges facing such firms.

To assess the impact of the timing of financial restatement vis-à-vis clawback adoption on the stock price response, we examine the abnormal returns for restating firms whose mis-statement occurred more than a year prior to the event date on the grounds that such firms have had a reasonable amount of time to address shareholders' concerns and their reputational damage. Srinivasan (2005) chronicles a greater turnover of board members following the firm's earnings reporting failure (compared to firms without a misstatement), as part of an effort to strengthen monitoring. The (-10, +5) window excess return for 66 firms with older restatement incidence (more than one year prior to clawback adoption) is 5.93% (p-value 0.01), indicating that any corporate governance changes are not a substitute to the adoption of clawback provision. These results imply that once a clawback policy is put in place, it provides shareholders with an extra, yet separate channel to effect recourse—through the legal system—in the event that the board does not take action.

Taken together, our empirical findings support our second hypothesis, *Information Asymmetry Hypothesis*, and suggest that this new contracting environment can alleviate uncertainty over the firm's accounting practices and narrow the information asymmetry gap between the firm and investors resulting from the misreporting in the financial statements.

In Panel C of Table 4, the firms are partitioned in quartiles based on the proportion of equity-based compensation to total CEO pay. The panel tabulates the excess return for each quartile. The results show that firms in the highest and second highest quartiles of equity incentives experience the highest abnormal returns over (-10, +5) window of 2.23% and 3.84%, respectively. These results are consistent with the view that higher equity compensation schemes are associated with higher agency costs of compensation.

### *C. Multivariate analysis*

We now turn to testing our predictions in a multivariate regression setting after controlling for the

standard firm characteristics. Toward that goal, we estimate various regression configurations of the relation of shareholder wealth changes to firm characteristics, provision characteristics, and CEO compensation structure variables as show in the following model:

$$Excess\ Return_i = \beta_0 + \beta_1 Size_i + \beta_2 Market\ to\ Book_i + \beta_3 Leverage_i + \beta_4 Trigger-P_i + \beta_5 Trigger-F_i + \beta_6 Trigger-NC_i + \beta_7 Restate_i + \beta_8 Delta_i + \beta_9 Incentives_i + \beta_{10} CEO\ Influence_i + \varepsilon_i \quad (1)$$

The regression results, displayed in Tables 5 and 6, also include industry and year fixed effects. The industry fixed effects control for the firm’s competitive environment and industry market conditions, thereby reducing the endogeneity of corporate governance and executive compensation structure within industries. The dependent variable in the regressions is the (-10, +5) excess returns. Firm characteristics and compensation structure variables are measured as the average over the three years preceding the adoption to reduce the influence of outliers. *Size* is measured as the natural logarithmic transformation of firm’s total assets. Since larger firms are subject to a greater degree of monitoring from capital markets and financial analysts than smaller firms, we expect larger firms to have lower informational asymmetry and as a result to be impacted to a lesser degree when a recovery policy is instituted. It also has been argued that larger firms have lesser incentives to manipulate earnings as political costs for such action is higher for these firms. *Leverage* is defined as the ratio of total debt divided by total assets. We include market-to-book ratio to proxy for growth opportunities. *Market-to-Book* ratio is defined as (market capitalization of equity + (total assets - book value of equity – deferred taxes)/book value of total assets.

We employ two variables to proxy for CEO equity based compensation—*Delta*, and *Incentives*. *Delta* measures the pay performance sensitivity of the CEO’s portfolio of equity incentives and is calculated as the natural logarithm of the dollar amount of change in a CEO’s portfolio of stock and options (current and previously awarded) for every 1% increase in company stock price, where the change in stock value equals the number of shares times a 1% increase in stock price and the change in option value equals the number of options times the option’s delta times a 1% increase in stock price.<sup>10</sup>

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<sup>10</sup> Using a modified version of the Black and Scholes (1973) model and following Core and Guay’s (2002) procedure, we estimate delta as the dollar amount of change in CEO’s portfolios of stocks and options with 1%

*Incentives* is computed as the fraction of equity-based compensation to total CEO pay which includes the sum of the executive's salary, bonus, long term incentive plans, the value of restricted stock and the value of granted options. *Restate* is an indicator variable that takes the value of 1 if the firm's financials were subject to a restatement over the four years prior to the clawback adoption. We employ three proxies for CEO influence: *CEO Turnover*, which takes the value of 1 if firms change CEO over the three years prior to the adoption, *CEO tenure*, and *Duality*, which takes a value of 1 when the CEO is the chairman of the board and 0 otherwise.

#### *C1. Testing asymmetric information hypothesis*

In Table 5, we provide various regression specifications to test the implications of clawback triggers and the incidence of financial misreporting on shareholder excess returns. None of the control variables is statistically significant, indicating that the stock market reaction is driven by factors beyond the common firm characteristics.

Since the clawback triggers are not mutually exclusive, we include in Model 1 three trigger dummy variables (indicating the presence or absence of the trigger) to test which of the three triggers, if any, is most valuable to shareholders. The coefficient estimates of each of the dummy variables are not statistically significant, suggesting that the market responds similarly to the board's action irrespective of type of trigger—i.e., no trigger is superior to the other. In Models 2-4, we estimate three different regression specifications which include each trigger variable separately. The results are invariant to that formulation.

In Model 5, we employ *Restate* as our test variable for the *Asymmetric Information Hypothesis*. Corroborating results in the previous section, the coefficient on this variable, 0.030, is positively and significantly related to shareholder gains in support of our hypothesis. Based on this result, shareholders

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change of stock price. The risk free rate is measured as the treasury-bond yield corresponding to the option's remaining time to maturity. Expected dividend yield and stock return volatility are estimated using information from Compustat and CRSP, respectively. We compute these parameters each year and update the delta of executive portfolios correspondingly.

in firms that experience a breakdown in their internal monitoring (i.e., lack of diligence that resulted in misreporting) gain 3% more than non-misreporting firms. This finding extends the literature that deals with financial restatements by providing evidence that clawback clauses can reduce the information asymmetry gap arising from lack of credibility in the firm's accounting practices.

In another attempt to separate the effects of the three clawback triggers, we include in Model 6 three interaction terms (a) one between the performance-based trigger indicator variable and *Restate*, (b) another between the fraudulent trigger and *Restate*, and (c) one between non-compete trigger and *Restate*. The results reveal that only the cross product term involving the misconduct trigger is significant with a coefficient estimate of 0.048. In Model 7, we incorporate the three individual triggers in addition to the three cross product terms involving *Restate* and clawback triggers. The results in this model confirm findings in Model 6, in that the fraudulent trigger cross product term is the only significant variable. This evidence highlights the notion, that even though each trigger in itself is not superior (Models 1-4), firms that restate their earnings gain the most from implementing the fraudulent trigger as it assuages concerns about the firm's reputation and the integrity of its financial statements. We interpret the results to mean that the market views a fraud deterrent provision to have more value than the performance-based or non-compete triggers, contrary to expectations of corporate governance experts who proclaim the performance-based trigger as the "gold standard." The finding that investors value the fraud deterrence provision more may be attributed to the fact that in the absence of fraud, it is harder for shareholders to sue successfully.

## *C2. Testing agency cost of compensation hypothesis*

In this section, we estimate a set of regressions to test the *Agency Costs of Compensation Hypothesis*. We include variables to proxy for CEO incentives, the degree of CEO influence and the incidence of previous misreporting of financials. Results testing the first form of the *Agency Costs of*

*Compensation Hypothesis* (H<sub>3a</sub>) are reported in Table 6 and those of the second form of the hypothesis (H<sub>3b</sub>) are reported in Table 7.

Although there is evidence that greater equity based compensation can lead to costs of managerial rent-seeking behavior, the benefits from fostering managerial risk-taking can more than outweigh the agency costs of compensation. As a result, the influence of a tilt toward equity incentives in our sample firms on shareholders is an empirical issue. We examine this by including the *Delta* and *Incentives* variables in Models 1-3 of Table 6. With statistically insignificant coefficients on both proxy variables, the inferences from these models are similar—the evidence points to no linkage between equity based compensation and shareholder gains.

As discussed earlier, a superior framework to test the *Agency Costs of Compensation Hypothesis* (H<sub>3b</sub>) is to examine CEOs who are rewarded with high equity compensation contracts and who simultaneously have abused their power in the past (i.e., firm has misreported its earnings). This combination gives rise to an environment that may allow the CEO to exploit shareholders with impunity. Recent work finds evidence that firms that report accounting violations are associated with higher equity-based incentives. For example, Burns and Kedia (2006) document a link between accounting misreporting and CEO compensation structure. Efendi, Srivastava, and Swanson (2007) find that the likelihood of a misstated financial statement increases when the CEO has sizable holdings of in-the-money stock options. Building on this body of evidence, we investigate the effect of agency costs of compensation conditional on a previous restatement of earnings, by employing the interaction term, *Restate\*Delta* in Model 2 and *Restate\*Incentives* in Model 3. The coefficients on both joint effect variables are positive and significant. Specifically, the point estimate on *Restate\*Delta* is 0.004 while that for *Restate\*Incentives* is 0.041. To gauge the economic significance for the mean firm with \$1,279 delta value, the clawback provision induces 0.84% in shareholder gains at firms without previous incidences of misreporting of earnings compared to 2.08% at firms with an incidence of restatement (and similar CEO pay sensitivity)—about 2.5 times the magnitude of firms that did not experience a failure in internal monitoring controls. Similar

implications can be inferred when using the *Incentives* variable.

Next, we investigate the role CEO entrenchment plays in the stock response to clawback policy. Berger, Ofek and Yermack (1997) show that CEO entrenchment is characterized by, among others, a long job tenure in office while Rose and Shepard (1997) argue that entrenchment arises because a CEO holding the position longer would have more opportunity to influence the composition of the board of directors and to build a constituency among managers. Reciprocally, entrenchment can advance CEO tenure, because it effectively insulates the CEO from the threat of dismissal (Berger, Ofek and Yermack (1997). If entrenched CEOs are more likely to abuse their power, investors may view instituting a recoupment policy more favorably because the new contractual environment would represent a restriction on their powers.

Alternatively, an argument can be made that CEOs with long tenure may have longevity at their firms because they were successful executives (Milbourn, 2006). Other research work reports a negative relation between CEO turnover and prior performance (see for example, Coughlan and Schmidt, 1985; Warner, Watts and Wruck, 1988; and Jensen and Murphy, 1990). Thus, a priori, it is not clear whether long job tenure has a positive or negative influence on shareholders. To examine this issue empirically, we employ CEO tenure in Model 4 and the presence or absence of CEO turnover over the preceding three years in Model 5. Our results reveal a significant negative link between CEO tenure and shareholder wealth effects and a positive relation between CEO turnover and stock price response. Investors' response is less favorable when this new contracting feature applies to CEOs with long tenure. These findings imply that CEOs with long tenure in our sample of firms have longevity with their firms precisely because they are successful. Another possible interpretation of this result is that investors' assessment of the likelihood of recoupment is lower due to the greater influence of the CEO.

We test the second form of the *Agency Cost of Compensation Hypothesis* ( $H_{3b}$ ) in Models 1 and 2 of Table 7. Here we investigate the impact of the combination of high CEO tenure and elevated equity based incentives on shareholders' wealth. To do so, we incorporate two interaction terms, *Tenure\*Delta* and *Tenure\*Incentives*, in Models 1 and 2, respectively. We expect a positive association between the

interaction terms and shareholder excess returns. The results are consistent with  $H_{3b}$  supporting the notion that shareholders view embedded clawback clauses more favorably when the entrenched CEO has greater agency costs of compensation.

In Model 3, we examine the joint effect of CEO entrenchment coupled with financial misreporting. We argue that long tenure combined with incidences of misreporting is more likely to reflect an entrenched CEO who has exploited the compensation structure for personal gain. Consequently, shareholder gains from introducing a restrictive contracting environment in firms with highly exploitative CEOs should be greater. Supporting this conjecture, the coefficient on this interaction term is positive and significant underscoring that investors view the clawback adoption more favorably at these firms. Finally, we postulate that shareholders at firms that engaged in misreporting of financials combined with influential CEO, stand to benefit more at adoption of clawback clause. Efendi, Srivastava, and Swanson (2007) finds that misstatements are more likely at firms whose CEOs also serve as board chair. In Model 4, we employ the joint effect variable, *Duality\*Restate*. The positive and significant coefficient on this interaction term confirms our proposition. In sum, our findings indicate that shareholders of firms with unprincipled and entrenched CEOs welcome the changes that a disgorgement clause brings to the contractual environment of the CEO.<sup>11</sup>

## **V. Logit Analysis of the Choice to Opt for Clawback Provisions**

In this section, we aim to identify which firms are more likely to adopt a best governance practice such as the recapture policy. The intent of this analysis is to provide a better sense of the firm attributes that affect the likelihood of adoption, which may not necessarily be the same factors that induce a larger

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<sup>11</sup> In unreported results, we investigate the relation of board structure to valuation consequences. A priori, it is not clear whether the economic consequences to firms with superior governance structure, and hence more vigilant monitors, is lower because investors view these firms as being not at risk of manipulating compensation or whether the boards that are more discerning monitors of management, provide more value added than ineffectual boards. Moreover, shareholders may value the new contracting environment irrespective of the structure of the board that led to the decision. Using a number of board attributes identified in past research as relevant to corporate governance such as board size, director independence, director ownership in the firm, busyness of board members and leadership of the board (CEO/Chairman dual role), the results indicate no linkage between board structure and shareholders' excess returns. Our inferences are unaltered using various regression specifications.

market response. To that end, logit analysis is conducted using a control sample. To construct a control comparison sample, we first match each of our sample firms with firms that belong to the same two-digit standard industry classification (SIC) code. From this set of match firms, we then identify those firms that have executive compensation information in ExecuComp database, information on board characteristics in The Corporate Library and corporate financial data in Compustat database. Finally, for each firm in our clawback sample, we construct a portfolio of at most four match firms that are the closest in terms of firm size to the clawback firm.

#### *A. Firm characteristics and governance structure*

Since we are interested in examining the effect of firm characteristics, board governance structure, and CEO compensation on the firm's decision to opt for clawback policy, we report summary statistics for these variables for the clawback sample and the control sample in Table 8.

The data in Table 8 reveals that our sample firms are larger than control firms whether that is measured using total assets or market capitalization, despite the fact that we match on the closest firm size. This finding implies that the early adopters of this contracting feature tend to be predominantly larger firms. Our sample firms tend to have lower leverage and market-to-book ratio than control firms, although the differences are not statistically significant. However, we observe significant differences between our sample and the control sample in a number of dimensions. First, our sample exhibits a significantly higher proportion of firms with financial misstatements (24.21% vs. 13.58%) and substantially higher CEO turnover over the three years prior to the clawback inclusion (32.98% vs. 27.88%). Consistent with higher turnover, we also find that the mean CEO job tenure in our sample, 7.50 years, is significantly lower than at control sample firms, 8.23 years. Despite the more sizable CEO turnover in our sample, we observe a significantly greater proportion of CEOs at our sample firms holding the dual role of CEO/Chairman (57.44% vs. 50.22%) indicative of more influential CEOs. Moreover, the Gompers, Ishii, and Metrick's (2003) GIM-Index is also significantly higher for our sample, a further indication of CEO entrenchment. GIM-Index gauges managerial power and is the sum

of the presence of 24 antitakeover provisions in the firm's charter where a greater value reflects greater restrictions on shareholder rights and a more insular environment for the CEO.

The next segment of the table displays the comparative metrics on the profile of the board of directors for the two samples. Using standard taxonomy of directors, we classify directors as independent if they have no ties to the firm. Although the data indicates a higher fraction of our firm's boards are busy (10.45% vs. 8.76%) with slightly lower equity ownership in their firms (1.19% vs. 1.28%), the differences between our sample and match firms for the latter attribute is not statistically significant. We also document that board size in our sample firms, on average, is larger than at control firms (9.78 vs. 9.36 directors). This is largely expected since our sample of firms is larger than those in the control sample because larger, more complex organizations tend to employ more directors for expertise and monitoring functions. As argued by Raheja (2005) and Boone, Field, Karpoff and Raheja (2007), larger board size may be optimal for larger firms. Coles, Daniel and Naveen (2008) also show that firms that require more advice derive more value from larger boards. The last metric gauging board structure is what distinguishes the two samples. Particularly, the proportion of independent directors at our sample firms is significantly larger than that at the control sample (85.29% vs. 83.78% with a p-value of 0.00).

In the last segment of Table 8, we report statistics on CEO compensation structure. Given that our firms are larger, it is expected that the mean total CEO compensation for our sample (\$7.04 million) is higher than that for the control sample (\$5.92 million). However, an interesting observation from the executive compensation data is that the control sample firms pay a larger proportion of compensation in cash. In summary, the findings in this table underscore that adopting firms are starkly different from non-adopting firms in a number of ways. Adopting firms are subject to more financial restatements, which could be partly the cause of higher CEO turnover and shorter CEO tenure. Our sample firms also exhibit more independently minded boards, while CEOs are more influential with a compensation structure that is less tilted toward cash and more toward equity.

In the last six columns in Table 8, we partition the two samples into restating and non-restating firms and provide the same firm, board structure and compensation characteristics for the four

subsamples. Most conclusions drawn from the complete samples hold for the comparison between the two misreporting subsamples as well as between the two non-misreporting subsamples. One of the most striking findings in the remainder of the table is that the CEO turnover is higher for our sample firms than the control group whether there is a restatement of earnings or not. When coupled with significantly more independent boards for the adopting subsamples, the higher turnover points to independent boards at adopting firms that are more diligently proactive than at control firms. Furthermore, the statistics on CEO performance pay-performance sensitivity reveals that restating firms that adopt the provision have twice the pay-performance sensitivity of restating control sample (\$1,318 vs. \$654 with a p-value of 0.07).

### *B. The logit findings*

In this section, we highlight some of the forces that may drive the decision to adopt a new contracting environment by estimating multivariate logistic regressions. To test to what extent the firm characteristics and corporate governance structure are associated with the choice to make executive contracts more complete with a clawback provision, we utilize a logit regression model where the dependent variable equals one for firms in our sample and 0 for control firms that do not have the feature. We include various specifications of the following model and combinations of some joint effects.

$$\text{Probability of Clawback Adoption} = f(\text{Size, Leverage, ROA, Market-to-book, Restate, Delta, Incentives, CEO Influence, Board characteristics}) \quad (2)$$

We include four firm characteristic determinants, namely, size of the firm, leverage, market-to-book ratio and return on assets. Variable definitions are detailed in Appendix B. The results of various logit models are displayed in Tables 9 and 10.

Across all models, we find that firm size has explanatory power as a determinant of the likelihood of the firm to opt for a clawback policy, suggesting that larger firms are more likely to take such action, all else being equal. In our analysis of sample distribution by size (unreported), we find that S&P 500 firms account for nearly half of our sample. Larger firms with prestige on the line may feel that an adoption of the politically correct policy is good for their image; and they may use the adoption to signal

the quality of their firms and their corporate governance. In all models, firm leverage is negatively associated with the incidence of clawback adoption and most coefficients are statistically significant. Based on the coefficient of *Leverage* in Model 1, for every 10% increase in the firm's leverage ratio, the odds of firms' adopting clawback policy decreases by 10%. This negative relation between leverage and the probability of adoption can be attributed to the fact that leverage acts as a disciplining mechanism which renders highly levered firms in less need of an extra device to curtail managerial power. The coefficients on *Return on Assets* take a positive sign, although most of the point estimates are not statistically significant. We use an alternative variable, *LOSS*, which takes a value of 1 if the firm has negative earnings and 0 otherwise. Again, this variable is insignificant in all specifications (unreported). Thus, firm's accounting performance is not a predictor of clawback adoption.

Past research has shown that the asymmetric payoff provided by option compensation can reduce agency costs, especially for firms with high growth opportunities by encouraging managerial risk-taking. Firms' investment opportunities are described by Myers (1977) as call options whose value depends on the likelihood that management will exercise them. Hence, the larger the proportion of firm value represented by growth options, the more important is managerial risk-taking behavior for the maximization of shareholder wealth. Smith and Watts (1992) provide empirical evidence justifying the use of incentive compensation to induce risk-averse managers to take actions that risk-neutral principals would like them to take. Gaver and Gaver (1993) argue that since managerial actions in high growth opportunity firms are less observable and more difficult to monitor, shareholders are more likely to rely on incentive contracts to motivate managers to make decisions that best advance shareholder interests.

Extending this reasoning, we argue that if clawback provisions lead to interference in the incentives that are meant to align principal-agent interests and, therefore, result in dampening managerial risk-taking at high growth firms, boards will be reluctant to put in place such provisions. Despite the benefits of clawbacks to shareholders discussed earlier, embedding clawback clauses in executive contracts may not be optimal for all firms. Therefore, we posit that the higher the growth opportunities

available to the firm, the lower the likelihood of clawback adoption. Following previous research, we employ market-to-book ratio to proxy for the investment opportunities available to the firm.

All models in Table 9 and 10 include the proxy for growth opportunities. The results in all models indicate a negative sign on the coefficients of the market-to-book ratio which is statistically significant in all models but one. More specifically, the coefficient for market-to-book in logit Model 2 of Table 9 implies that an increase in the market-to-book ratio from 1 to 2 reduces the odds of clawback adoption by up to 13%. The odds of adoption are diminished even more when using smaller coefficients in other models. This finding strongly suggests that high growth firms are less likely to adopt this governance measure, confirming our conjecture that boards in firms with growth opportunities are willing to give managers more latitude and encourage risk-taking that can translate growth opportunities into sound financial results. This empirical finding is also consistent with the interpretation that boards do not find it necessary to restrict earnings smoothing by managers if that reduces the noisy information that typifies the operating environment of high growth firms.

In Model 1 of Table 9, we are interested in the test variable *Restate*. Restatement of financial results brings to the attention of investors flaws in the internal monitoring of the firm. The reputational capital damage of restating earnings leads to, among other things, increased costs of equity financing and greater bank loan spreads. Thus, prior episodes of financial restatement articulate the urgency for effective measures to curb executive negligence or excessive rent extraction behavior. Given that shareholder wealth gains to firms with restatement incidences are the largest, we reason that such firms are more likely to employ this corporate governance mechanism as a “quick fix” to internal monitoring failure and to reputational degradation. The results in Model 1 document that *Restate* is a significant predictor of the likelihood of adoption. A restatement increases the odds of firms’ adopting a recoupment policy by a factor of 1.94 implying that a firm with a history of misreporting earnings is twice as likely to adopt. This is consistent with the interpretation that troubled firms are under pressure from market forces for better corporate governance measures to prevent such an event from happening again and to diminish the adverse ramifications arising from information asymmetry between investors and the firm. This result

is corroborated by the data in Table 8 showing that our sample firms have a significantly higher incidence of misreporting than the control sample.

As discussed earlier, the benefits of equity incentives are accompanied by the agency costs that could result from such compensation structures. It is not clear whether firms with high stock-based compensation are more or less likely to adopt the disgorgement clause. To the extent that the benefits from tying CEO pay to firm's stock performance are larger than the agency costs of managerial rent extraction, the less likely it is that the firm chooses the embedded clawback clause and vice versa. We empirically examine this issue in Model 2 which includes the pay-performance sensitivity variable, *Delta*, and in Models 4 and 6 which employ *Incentives*. The results in Model 2 reveal that pay-performance sensitivity is negatively and significantly associated with the likelihood of adoption indicating that the benefits of high pay-sensitivity outweighs the agency costs. However, the coefficients on *Incentives* are not statistically significant, suggesting that CEOs' total portfolio holdings are more relevant to the choice of going for clawback than just newly granted options and stocks. To investigate the factors driving the results, we include *Delta* and the interaction term, *Delta\*Market-to-book*, in Model 3. The coefficient on *Delta* in this model is no longer significant while the point estimate for the interaction term is negative and significant. These results in combination imply that incentive-based executive compensation, in and of itself, is not a predictor of the recovery provision; rather high pay-performance sensitivity from equity incentives in high growth firms lead to lower probability of adoption.

To test the relevance of equity incentives conditional on financial misreporting, we include the interaction terms *Delta\*Restate* in Model 5 and *Incentives\*Restate* in Model 6 of Table 9. The empirical evidence from both models shows that for firms with episodes of restatements, higher equity-based incentives and higher CEO pay-performance sensitivity are significant forces in spurring the choice of a clawback provision. Put differently, since the agency cost of compensation is more severe at firms that have already experienced failure in internal monitoring systems, the boards at such firms are more apt to endorse a clawback provision to reduce the chances of a repeat in misreporting.

In Table 10, we examine several factors that relate CEO influence and board structure to the

probability of adopting a clawback feature. We first test the implications of the CEO's influence on the incidence of clawback adoption by incorporating CEO turnover in Model 1 and the length of CEO job tenure in Model 2. We reason that boards will find it easier to implement a new and more restrictive contractual technology when there is a CEO turnover and predict that the relation between CEO turnover and likelihood of adoption is positive. Further, given that executives with longer job tenure will enjoy greater managerial influence (Finkelstein and Hambrick, 1989), we expect CEO tenure to be negatively associated with the likelihood of firms' decision to opt for a clawback clause. The statistically significant and positive coefficient on CEO turnover in Model 1 indicates that a change in CEOs increases the odds of clawback policy by about 32%. Similarly, Model 2 shows CEO tenure to be a significant predictor of firm's likelihood to opt for a clawback clause. An increase in CEO job tenure is associated with a decrease in the odds of firms' clawback adoption. Our empirical results suggest that executives with long tenure are able to influence the board and eschew discipline, consistent with the managerial entrenchment theory (Berger, Ofek and Yermack, 1997) and managerial power theory (Bebchuk, Fried and Walker, 2002). In contrast, newly-appointed CEOs lack the power of entrenched CEOs and are not insulated from board action in support of Bebchuk, Cohen and Ferrel (2009).

Next, in Model 3, we test the relevance of the GIM-Index as a proxy for the corporate governance climate in the firm. The results show that the point estimate for this variable is not statistically significant suggesting no linkage between the decision to adopt a clawback regime and governance climate reflected by the GIM-Index.

In Models 4 and 5, we examine the importance of certain features of board structure on the likelihood of adopting a recoupment policy. There is extensive literature on the role that directors play in the governance of public corporation and the efficacy of their monitoring of management. As the ultimate internal monitors, boards are expected to act in the best interest of shareholders. Past studies on corporate governance of boards present evidence that strong boards are associated with effective monitoring of management actions and protecting shareholder interest against managerial opportunism (see, e.g., Dechow, Hutton and Sloan, 1996). Specifically, board independence has received ample attention in the

empirical literature demonstrating the importance of outside directors to good governance and firm value such as greater likelihood of outside directors to replace poorly performing CEOs (Weisbach, 1988) and they are more likely to appoint an outside CEO (Borokhovich, Parrino and Trapani, 1996).<sup>12</sup> Further, Srinivasan (2005) documents that while the legal consequences to independent directors are negligible for companies experiencing financial misstatements, the reputational penalties to directors is not, because board turnover increases following such events. It seems reasonable to assume that diligent boards would be keener on avoiding reputational penalties than weaker boards. Therefore, we stipulate that to avoid reputational penalties and loss of directorship, strong boards are more likely to espouse the adoption of effective governance mechanisms.<sup>13</sup>

In Model 4, we gauge the strength of the board with the proportion of its independent directors and in logit Model 5, we employ various board structure characteristics such as board size, busyness of board (measured as fraction of board members who sit on three or more boards), and fraction of independent directors, average ownership of outside board members. We utilize a dummy variable that takes a value of 1 if the CEO holds the board chairman position (referred to as CEO duality). This variable traverses two interrelated dimensions, namely, CEO influence and board structure. The results in Models 4 and 5 reveal that the incidence of adopting a clawback policy is systematically and significantly related to the independence of board members. The coefficients on *Board Independence* in both models confirm that independent outside boards are more likely to usher in this new contractual technology and supports the notion that independent boards are more keen on strengthening the internal control systems of the firm. This result is consistent with evidence provided by Chhaochharia and Grinstein (2009) showing that new rules at the major exchanges regarding corporate board structure have resulted in newly

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<sup>12</sup> Agrawal and Chadha (2005) and Gerety and Lehn (1997) find a significant link between independent directors and lower likelihood of financial restatement.

<sup>13</sup> We examine the relevance of the composition of the corporate compensation committees as a determinant in the logit regression and find that it is not a significant predictor, most likely due to lack of cross-sectional variability in this variable given SOX rules requiring all public corporations to have an independent compensation committee.

elected directors being more truly independent.<sup>14</sup> Our evidence also corroborates the findings that independent boards are associated with actions that enhance shareholder value such as exacting higher premiums at target firms (Cotter, Shivdasani and Zenner, 1997), higher financial disclosure quality (Karamanou and Vafeas, 2005), and lower likelihood of financial statement fraud (Dechow, Sloan and Sweeney, 1996 and Farber, 2005).

None of the other board characteristics are statistically significant. Although conventional wisdom purports that smaller boards are more effective monitors, more recent work finds that one size does not fit all firms (Coles, Daniel and Naveen, 2008). The insignificance of the board size variable is consistent with that notion. Moreover, a positive sign on the board size variable does not support the interpretation that larger boards are easier to be influenced and controlled by the CEO. If busy directors are less diligent in performing their duties, then we would expect a negative coefficient on *Busy Director*.<sup>15</sup> However, the point estimate for this variable is positive and insignificant. Our evidence is contrary to findings by Fich and Shivdasani (2006) who demonstrate that less busy boards are more diligent in performing their oversight responsibilities.<sup>16</sup>

Overall, our findings provide a better understanding of the determinants that lead to a new contracting environment in the firm. In all, our results highlight that under certain circumstances, boards embrace ex post settling up when CEO's influence is weak, when the agency cost of executive compensation is severe and when the firm experiences reputational damage from previous failures in internal monitoring systems. Further, independent boards are more likely to usher in best governance

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<sup>14</sup> Recent new rules of the major exchanges established new restrictions on the structure of corporate boards requiring majority of board members on a single board to be independent, among other requirements.

<sup>15</sup> We also estimate a logit with a composite index of these three board characteristics (board size, board ownership and busyness of directors). The inferences remain unchanged.

<sup>16</sup> In unreported logits, we also examine the effects of institutional control on the likelihood of taking up a clawback policy by including institutional shareholdings estimated as a ratio of the number of shares held by institutional investors to total shares outstanding or a dummy variable that takes a value of 1 if a majority of outstanding shares is held by institutional investors and 0 otherwise. We find these variables to be insignificant, suggesting that institutional ownership structure is not a predictor of the adoption of recovery features.

practices. We also provide evidence that this contracting feature may not serve all firms equally because it may impose costs on firms with growth potential in the form of diminishing managerial risk-taking.

## **VI. Conclusion**

In this study, we document positive and significant capital market value effects surrounding firms' adoption of clawback policies, in support of the conjecture that this new governance mechanism is an effective approach to curtailing managerial rent-seeking behavior. Because this contracting approach provides shareholders with legal recourse that SOX does not, it in essence pierces the corporate veil that protects executives personally from liability. Our empirical results are consistent with the notion that incorporating ex post settling up features in executive compensation contracts reduces firms' legal costs for recoupment of compensation.

We also provide empirical evidence that firms having previous episodes of earnings restatements lead to higher wealth consequences indicating that investors view the new contractual technology as a safeguard against future executive rent extraction. Our analysis reveals that firms that experienced a previous failure in internal monitoring systems combined with the adoption of a fraudulent trigger clawback enjoy larger gains suggesting that investors value the fraud deterrence feature perhaps because fraud cases, as opposed to those involving "material" restatement, are more enforceable in the courts. Our findings also show that disproportionately higher equity-based compensation by influential CEOs elicits a larger favorable response from investors supporting the view that agency costs of compensation can be mitigated by the inclusion of clawback clause.

Our logit analysis provides insights into cross-sectional firm characteristics that are conducive to firm's taking up the ex post settling up provision. First, previous financial restatements double the odds of firms' adopting a recoupment policy, indicating that the boards in restating firms view the clawback provision as a "quick fix" to safeguard against future failures in internal controls and as an expedient way to improve firm's reputation, thereby reducing the negative ramifications of large information

asymmetries arising from a restatement. Second, we find that for firms with episodes of restatements, higher equity-based compensation is a significant factor in spurring the board of directors to choose this provision. Third, influential CEOs are associated with a lower probability of embedded disgorgement clause, consistent with the managerial power and CEO entrenchment theories. Fourth, our empirical evidence indicates that more independent boards are more likely to embrace this new contractual feature as they reassess the agency costs stemming from executive compensation. Finally, we report that boards of high growth firms refrain from adopting this new contractual environment, likely due to concerns that it may discourage justifiable managerial risk-taking required to take advantage of growth opportunities.

In a nutshell, clawback provisions enhance shareholder protection allowing them to seek legal relief against managerial misconduct, impose greater accountability in executive compensation, and lead to a new and more optimal contracting environment. Our results have implications to policymakers and financial market regulators who can extend the application of SOX rules to private parties, thus helping to re-establish the linkage between executive compensation and executive responsibility.

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## Appendix A

### Examples of Different Types of Clawback Provision Triggers

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#### **Trigger: Performance-based restatement**

**Winn-Dixie Stores, Inc.** In May 2009, we adopted a compensation recovery policy, sometimes referred to as a “clawback” policy. This policy provides that, following a restatement of our financial results, the Committee will have the discretion to review all performance-based incentive compensation received by senior executive officers, including our NEOs [*named executive officers*], during the 24 months prior to such restatement. The Committee, in its sole discretion, will determine whether recovery of the portion of any performance-based incentive compensation paid to a senior executive officer within such 24-month period that would not have been paid had there been no restatement of the financials is appropriate under the particular facts and circumstances.

#### **Trigger: Restatement caused by misconduct**

**Biogen.** We maintain policies to recover compensation from our employees who engage in detrimental or competitive activity. Detrimental activity includes any action or failure to act that constitutes financial malfeasance that is materially injurious to the Company, violates our Code of Conduct, results in restatement of our earnings or financial results or results in a violation or breach of law or contract. Competitive activity includes any action or failure to act that violates non-disclosure, non-competition and/or non-solicitation agreements. Our 2008 Performance-Based Management Incentive Plan provides for the forfeiture and/or repayment of awards and our 2008 Omnibus Equity Plan also provides for the cancellation of LTI awards in these circumstances.

#### **Trigger: Non-compete**

**Burger King Holdings Inc.** As described in our standard equity award agreements issued after April 2006, the Compensation Committee has the right to seek to recoup economic gains realized during the preceding year from the vesting, exercise or settlement of equity grants from an employee who violates any post-employment restrictive covenants contained in his or her employment or separation agreement, including non-compete and confidentiality obligations.

#### **Trigger: Performance-based restatement**

**Abercrombie & Fitch Co.** The plans pursuant to which short-term and long-term incentive compensation is paid to Company executive officers (i.e., the Company’s Incentive Plan, 2005 LTIP and 2007 LTIP) each include a stringent “clawback” provision, which allows the Company to seek repayment of any incentive amounts that were erroneously paid. Each of the plans provides that if (i) a participant (including one or more NEOs) has received payments under the plan pursuant to the achievement of a performance goal, (ii) the Compensation Committee determines that the earlier determination as to the achievement of the performance goal was based on incorrect data and in fact the performance goal had not been achieved or had been achieved to a lesser extent than originally determined and a portion of such payment would not have been paid, given the correct data, then such portion of any such payment paid to the participant must be repaid by such participant to the Company. This provision provides significant protection to the Company since there is no requirement of misconduct on the part of the plan participant before the policy is triggered.

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## Appendix B Variable Definitions

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**Abnormal return:** the difference between the actual return of firm  $i$  on day  $t$  and the expected return estimated from  $E(R_{it}) = \alpha_i + \beta_i * R_{mt}$  where  $R_{mt}$  is the contemporaneous return on the CRSP value-weighted index on day  $t$  and parameters  $\alpha_i$  and  $\beta_i$  are estimated using pre-event period defined as the 200-day period ending 50 days before event day. To obtain the cumulative abnormal returns, we sum the abnormal returns over various event windows surrounding the clawback provision adoption event data as reported in the firm's financial statement.

**Board size:** the number of directors serving on the board.

**Busy director:** a director that holds three or more board seats. We then calculate for each firm the percent of its outside directors that are busy.

**CEO duality:** a dummy variable equal to 1 if a CEO serves as chairman of the board of directors concurrently and 0 otherwise.

**CEO tenure:** measures the duration a CEO holds this position until the year before firm's clawback adoption.

**CEO turnover:** a dummy variables equal to 1 if there is a CEO change within three years prior to firm's clawback adoption and 0 otherwise.

**GIM-Index:** an index measuring managerial power devised by Gompers, Ishii, and Metrick (2003) incorporating 24 firm-level governance provisions and state antitakeover laws. High GIM-Index value represents weak shareholder (or strong managerial) power.

**Incentives:** the value of CEO's option grants and restricted stock grants to total CEO compensation.

**Leverage:** the firm's total debt to total assets.

**Market-to-book ratio:** firm market value of equity plus firm assets minus book value of equity and deferred taxes then divided by total assets.

**Pay-for-performance sensitivity (Delta):** the natural logarithm of the dollar change of a CEO's stock and option wealth for every 1% increase in company stock price, where the change in stock value equals the number of shares times a 1% increase of stock price and the change in option value equals the number of options times the delta of the options times a 1% increase of stock price. We calculate the pay-for-performance sensitivity based on the CEO's portfolio of stock and options at the end of each fiscal year.

**Restate:** a dummy variable which takes a value of 1 if the firm misreported its financial statements in the previous four years.

**Return on assets (ROA):** the ratio of firm net income to total assets.

**Size:** the natural logarithm of firm total assets.

**Trigger-P, Trigger-F, and Trigger-NC:** dummy variables which take a value of 1 if the clawback trigger is performance-based, misconduct, and non-compete, respectively and 0 otherwise.

**Table 1. Distribution of Samples By Year and Industry**

This table displays the distribution by year and industry for a sample of firms that adopt clawback provisions in the period 2005-2009. The total sample meets our requirements of non-missing information in Compustat, CRSP, ExecuComp and The Corporate Library databases. Panel A displays sample distribution by year for the total sample and subsample with event adoption dates. Panel B reports sample distribution by industry.

<b>Panel A: Sample distribution by year</b>					
<b>Full sample</b>			<b>Sample with event date</b>		
<b>Year</b>	<b>N</b>	<b>%</b>	<b>Year</b>	<b>N</b>	<b>%</b>
2005	7	2.46	2005	7	2.79
2006	24	8.42	2006	18	7.17
2007	78	27.37	2007	72	28.69
2008	78	27.37	2008	72	28.69
2009	98	34.39	2009	82	32.67
Total	285	100.00	Total	270	100.00

  

<b>Panel B: Sample distribution by industry</b>					
<b>Industry</b>	<b>N</b>	<b>%</b>	<b>Industry</b>	<b>N</b>	<b>%</b>
Mining	12	4.21	Electrical Equipment	25	8.77
Food	11	3.86	Transport Equipment	10	3.51
Apparel	5	1.75	Manufacturing	19	6.67
Paper	6	2.11	Railroads	3	1.05
Chemical	24	8.42	Other Transportation	8	2.81
Petroleum	1	0.35	Retail	41	14.39
Construction	1	0.35	Dept. Stores	3	1.05
Primary Metals	8	2.81	Service	35	12.28
Fabricated Metals	5	1.75	Other	48	16.84
Machinery	20	7.02	Total	285	100.00

**Table 2. Sample Distributions of Clawback Triggers**

This table reports the distribution of the sample of clawback provisions adopted between 2005-2009 based on triggers or combinations of triggers. The triggers are performance-based trigger, fraudulent trigger, and non-compete trigger. Clawback obligations may be set off by a single individual trigger or by a combination of triggers. Panel A shows the distribution of triggers across the entire sample. Panel B lists all possible combinations of triggers observed. Panel C exhibits trigger distribution by year with the percent of triggers based on the number of firms for that year.

	N	%								
<b>Panel A: Distribution by triggers</b>										
Performance-based	225	78.94								
Fraudulent	182	63.86								
Non-compete	60	21.05								
<b>Panel B: Distribution of trigger combinations</b>										
Performance-based only	69	24.21								
Fraudulent only	29	10.18								
Non-compete only	26	9.12								
Performance-based and Fraudulent	127	44.56								
Performance-based and Non-compete	8	2.81								
Fraudulent and Non-compete	5	1.75								
Performance-based, Fraudulent and Non-compete	21	7.37								
<b>Panel C: Distribution of triggers by year</b>										
	2005		2006		2007		2008		2009	
	N	%	N	%	N	%	N	%	N	%
Performance-based	5	71.43	15	62.50	64	82.05	74	78.72	77	78.57
Fraudulent	3	42.86	14	58.33	47	60.26	54	69.23	64	65.31
Non-compete	2	28.57	6	25.00	13	16.67	11	14.10	28	28.57

**Table 3. Cumulative Abnormal Stock Returns around Clawback Adoption Date**

The table presents mean and median cumulative abnormal stock returns (CAR) around filing statement date of 270 firms that instituted a clawback policy during the period 2005-2009. Event window shows the interval of days around event date. In Panel A, event date is filing date. Panel B utilizes board approval date, when available, instead of filing date. Panel C excludes firms with 10-k, 8-k or 6-k filing date. p-values are in parentheses. \*, \*\*, and \*\*\* represent the 10%, 5% and 1% significant levels, respectively.

Event window	Cumulative abnormal returns	
	Mean	Median
<b>Panel A: Full sample with filing date as event date (N=270)</b>		
(-50, -10)	0.0239** (0.041)	0.0191** (0.023)
(-5, +2)	0.0095* (0.078)	0.0017 (0.235)
(-10, +5)	0.0194** (0.013)	0.0069** (0.012)
(-5, +5)	0.0132** (0.027)	0.0069*** (0.005)
(+10, +50)	-0.0060 (0.534)	-0.0090 (0.458)
<b>Panel B: Full sample with filing date and adoption date (N=270)</b>		
(-50, -10)	0.0236** (0.028)	0.0192** (0.011)
(-5, +2)	0.0103** (0.029)	0.0033 (0.133)
(-10, +5)	0.0189** (0.018)	0.0060** (0.023)
(-5, +5)	0.0124** (0.039)	0.0071*** (0.006)
(+10, +50)	-0.0074 (0.471)	-0.0077 (0.418)
<b>Panel C: Sample excluding 10-k, 8-k and 6-k filings (N=226)</b>		
(-50, -10)	0.0200* (0.078)	0.0201** (0.036)
(-5, +2)	0.0105** (0.041)	0.0000 (0.352)
(-10, +5)	0.0211** (0.014)	0.0050** (0.041)
(-5, +5)	0.0148** (0.021)	0.0052** (0.022)
(+10, +50)	-0.0072 (0.533)	-0.0080 (0.449)

**Table 4. Univariate Analysis of Cumulative Abnormal Stock Returns**

The table presents mean and median cumulative abnormal stock returns (CAR) around filing statement date of 251 firms that instituted a clawback policy during the period 2005-2009. Panel A categorizes firms by the clawback triggers of: Performance-based trigger (Trigger-P), fraudulent trigger (Trigger-F) and non-compete trigger (Trigger-NC). Panel B separates firms based on whether the firm filed a financial restatement in the four years prior to adoption of clawback feature versus those that do not. Panel C partitions the sample into quartiles based on proportion of CEO equity based compensation to total pay (*Incentives*) of the sample firm. p-values are in parentheses. \*, \*\*, and \*\*\* represent the 10%, 5% and 1% significant levels, respectively.

<b>Panel A: CARs by clawback triggers</b>				
<b>Event window</b>	<b>Trigger-P</b>	<b>Trigger-F</b>	<b>Trigger-NC</b>	
(-10, +5)	0.0218** (0.018)	0.0246** (0.027)	0.0180 (0.372)	
(-5, +5)	0.0143** (0.031)	0.0173** (0.044)	0.0124 (0.355)	
N	213	170	56	
<b>Panel B: CARs of restating vs. non-restating firms</b>				
<b>Event window</b>	<b>Non-restating</b>		<b>Restating</b>	
(-10, +5)	0.0089 (0.289)		0.0411** (0.017)	
(-5, +5)	0.0042 (0.559)		0.0322*** (0.004)	
N	185		85	
<b>Panel C: CARs by incentives</b>				
<b>Event window</b>	<b>Quartile 1</b>	<b>Quartile 2</b>	<b>Quartile 3</b>	<b>Quartile 4</b>
(-10, +5)	0.0037 (0.780)	0.0086 (0.534)	0.0384* (0.061)	0.0225* (0.066)
(-5, +5)	0.0088 (0.523)	0.0086 (0.386)	0.0242* (0.064)	0.0134* (0.061)
N	62	63	63	63

**Table 5. Regression Results Explaining Capital Market Response**

This table reports results of regressions explaining equity excess returns for firms that adopted clawback provisions during 2005-2009 period. The dependent variable is cumulative abnormal returns (CAR) for (-10, +5) event window. The independent variables are: *Trigger-P*, *Trigger-F*, and *Trigger-NC* are dummy variables, which take value of 1 if clawback trigger is performance-based, misconduct, non-compete respectively, and 0 otherwise; *Restate* takes a value of 1 if the firm restated its financials in the previous four years. The control variables are *Size* (natural log of firm asset), *Market-to-book* (the ratio of firm market value of equity + (firm assets – book value of equity))/ total assets) and *Leverage* (total debt to firm assets). *P*-values are in parentheses. \*, \*\*, and \*\*\* represent the 10%, 5% and 1% significant levels, respectively.

<b>Independent variable</b>	<b>Model 1</b>	<b>Model 2</b>	<b>Model 3</b>	<b>Model 4</b>	<b>Model 5</b>	<b>Model 6</b>	<b>Model 7</b>
<i>Size</i>	-0.0055 (0.286)	-0.0055 (0.284)	-0.0051 (0.318)	-0.0052 (0.309)	-0.0037 (0.474)	-0.0037 (0.471)	-0.0037 (0.468)
<i>Market-to-book</i>	0.0014 (0.881)	0.0015 (0.873)	0.0013 (0.891)	0.0012 (0.901)	0.0034 (0.723)	0.0042 (0.666)	0.0046 (0.632)
<i>Leverage</i>	-0.0025 (0.965)	-0.0020 (0.972)	0.0012 (0.984)	0.0000 (0.999)	0.0116 (0.836)	0.0133 (0.811)	0.0163 (0.774)
<i>Trigger-P</i>	0.0116 (0.578)	0.0127 (0.511)					0.0093 (0.675)
<i>Trigger-F</i>	0.0008 (0.963)		0.0016 (0.921)				-0.0200 (0.308)
<i>Trigger-NC</i>	-0.0031 (0.884)			-0.0075 (0.702)			-0.0048 (0.846)
<i>Trigger-P*Restate</i>						0.0047 (0.838)	-0.0087 (0.744)
<i>Trigger-F*Restate</i>						0.0477* (0.065)	0.0651** (0.035)
<i>Trigger-NC*Restate</i>						0.0029 (0.925)	0.0042 (0.909)
<i>Restate</i>					0.0302* (0.040)		
Year dummy	Yes						
Industry dummy	Yes						
Overall R-squared	0.324	0.323	0.322	0.323	0.332	0.344	0.348
Number of observations	259	259	259	259	259	259	259

**Table 6. Role of Agency Costs of Compensation in Explaining Capital Market Response**

This table reports results of regressions explaining equity excess returns for firms that adopted clawback provisions in 2005-2009 period. The dependent variable is cumulative abnormal returns for (-10, +5) event window. The independent variables are: performance pay sensitivity (*Delta*), fraction of CEO equity-based compensation to total pay (*Incentives*); *Restate* takes a value of 1 if the firm restated its financials in the previous 4 years; CEO Tenure in years and CEO Turnover over 3 years preceding clawback adoption. The control variables are *Size* (natural log of firm assets), *Market-to-book* (market value of equity + (firm assets – book value of equity))/ total assets and *Leverage* (total debt to firm assets). *P*-values are in parentheses. \*, \*\*, and \*\*\* represent the 10%, 5% and 1% significant levels, respectively.

<b>Independent variable</b>	<b>Model 1</b>	<b>Model 2</b>	<b>Model 3</b>	<b>Model 4</b>	<b>Model 5</b>
<i>Size</i>	-0.0079 (0.252)	-0.0035 (0.438)	-0.0030 (0.421)	-0.0077 (0.168)	-0.0083 (0.116)
<i>Market-to-book</i>	0.0016 (0.878)	0.0124 (0.068)	0.0086 (0.761)	0.0024 (0.802)	0.0012 (0.908)
<i>Leverage</i>	-0.0038 (0.947)	-0.0207 (0.587)	-0.0323 (0.376)	-0.0353 (0.543)	0.0272 (0.643)
<i>Delta</i>	0.0040 (0.612)	0.0027 (0.602)			
<i>Incentives</i>			0.0270 (0.331)		
<i>Delta*Restate</i>		0.0040** (0.022)			
<i>Incentives*Restate</i>			0.0412** (0.034)		
<i>CEO Tenure</i>				-0.0024* (0.083)	
<i>CEO Turnover</i>					0.0314* (0.082)
Year dummy	Yes	Yes	Yes	Yes	Yes
Industry dummy	Yes	Yes	Yes	Yes	Yes
Overall R-squared	0.359	0.298	0.308	0.396	0.378
Number of observations	247	240	237	239	245

**Table 7. Relevance of Additional Agency Costs of Compensation Variables to Capital Market Response**

This table reports results of regressions explaining equity excess returns for firms that adopted clawback provisions in 2005-2009 period. The dependent variable is cumulative abnormal returns for (-10, +5) event window. The independent variables are: performance pay sensitivity (*Delta*), fraction of CEO equity-based compensation to total pay (*Incentives*); *Restate* takes a value of 1 if the firm restated its financials in the previous 4 years; CEO Tenure in years and CEO Turnover over 3 years preceding clawback adoption, and CEO Duality (CEO/Chairman role). The control variables are *Size* (natural log of firm assets), *Market-to-book* (market value of equity + (firm assets – book value of equity)/ total assets) and *Leverage* (total debt to firm assets). *P*-values are in parentheses. \*, \*\*, and \*\*\* represent the 10%, 5% and 1% significant levels, respectively.

<b>Independent variable</b>	<b>Model 1</b>	<b>Model 2</b>	<b>Model 3</b>	<b>Model 4</b>
<i>Size</i>	-0.0064 (0.249)	-0.0160** (0.017)	-0.0110* (0.056)	-0.0019 (0.507)
<i>Market-to-book</i>	0.0029 (0.763)	-0.0044 (0.659)	0.0001 (0.994)	0.0001 (0.988)
<i>Leverage</i>	-0.0221 (0.704)	0.0364 (0.571)	-0.0304 (0.597)	-0.0466 (0.109)
<i>CEO Tenure</i>	-0.0032** (0.029)	-0.0148*** (0.006)	-0.0057*** (0.003)	
<i>CEO Duality</i>				-0.0067 (0.482)
<i>Tenure*Restate</i>	0.0034** (0.042)			
<i>Tenure*Delta</i>		0.0019* (0.009)		
<i>Tenure*Incentives</i>			0.0099* (0.008)	
<i>Duality*Restate</i>				0.0241** (0.028)
Year dummy	Yes	Yes	Yes	Yes
Industry dummy	Yes	Yes	Yes	Yes
Overall R-squared	0.406	0.414	0.416	0.429
Number of observations	229	225	228	221

**Table 8. Descriptive Statistics of Clawback Firms and Control Sample**

This table presents descriptive statistics of firm, corporate governance, and CEO executive compensation characteristics for a sample of firms that adopt clawback provisions between 2005-2009 and control firms matched on 2-digit industry SIC code and size. The statistics are also presented for samples partitioned based on whether firms restated or did not restate financial earnings. All variable definitions are in Appendix B.

	<b>Clawback Sample N=285</b>	<b>Control Sample N=1,119</b>	<b>P-value of t-test</b>	<b>Clawback Restate Sample N=66</b>	<b>Control Restate Sample N=152</b>	<b>P-value of t-test</b>	<b>Clawback Nonrestate Sample N=219</b>	<b>Control Nonstate Sample N=967</b>	<b>P-value of t-test</b>
<b>Firm Characteristics</b>									
Market value of equity (\$m)	16,467.17	9,362.4955	0.00	8,130.26	6,933.04	0.57	18,964.40	9747.95	0.00
Total asset (\$m)	12,437.94	7,282.63	0.00	8,351.62	5,003.22	0.16	13,669.44	7486.29	0.00
Leverage	22.09	23.08	0.36	20.21	23.04	0.28	22.66	23.08	0.71
Return on assets	9.86	9.68	0.80	8.83	9.02	0.85	10.17	9.79	0.65
Market-to-book ratio	1.89	1.97	0.19	1.75	1.87	0.25	1.93	1.98	0.47
% firms restating	24.21	13.58	0.00	100.00	100.00	n.r.	0.00	0.00	n.r.
% firms with CEO Turnover	32.98	27.88	0.09	34.85	27.63	0.29	32.42	27.92	0.18
<b>Board Structure</b>									
Board size	9.78	9.36	0.01	9.79	9.24	0.10	9.78	9.38	0.02
Busy director (%)	10.45	8.76	0.06	9.89	6.34	0.09	10.61	9.20	0.18
Director shareholdings (%)	1.19	1.28	0.82	0.88	1.05	0.49	1.28	1.32	0.93
Outside director (%)	85.29	83.78	0.00	86.07	84.06	0.05	85.07	83.73	0.02
<b>CEO Influence</b>									
CEO/Chairman duality (%)	57.44	50.22	0.02	58.06	50.00	0.88	69.38	49.74	0.01
GIM-index	9.72	9.42	0.10	9.30	8.78	0.13	9.85	9.55	0.16
CEO Tenure (year)	7.50	8.23	0.08	7.99	8.89	0.40	7.37	8.13	0.09
<b>CEO Compensation Structure</b>									
Total compensation (\$,000)	7,041.96	5,917.8153	0.01	5,919.64		0.20	7,374.89		0.01
Options and restricted stock (\$000)	4,145.59		0.04	3,540.58	2,940.24		4,325.93	3,605.47	0.04
Cash pay/total compensation (%)	33.40		0.00	35.784	39.65		32.70	37.03	0.00
Equity pay/total compensation (%)	46.543	515.11	0.12	43.66	41.99	0.33	47.38	44.63	0.12
Delta (\$000)	1,279.08		0.63	1,318.43	654.03	0.25	1,267.06	1,707.00	0.46
	37.38					0.63			
	4,534.80					0.07			

**Table 9. Logit Regression Results Explaining the Likelihood of Adopting a Clawback Provision**

This table presents results of logit regressions where the dependent variable takes the value of 1 if a firm adopts a clawback provision and 0 otherwise. The independent variables are: natural logarithm of firm size, market-to-book ratio, leverage, ROA, CEO equity incentives as a proportion of total pay (*Incentives*), presence of incidence of financial restatement in previous 4 years (*Restate*), and pay-performance sensitivity (*Delta*). All variable definitions are in Appendix B. P-values are in parentheses. \*, \*\*, and \*\*\* represent the 10%, 5% and 1% significant levels, respectively.

<b>Independent Variable</b>	<b>Model 1</b>	<b>Model 2</b>	<b>Model 3</b>	<b>Model 4</b>	<b>Model 5</b>	<b>Model 6</b>
<i>Size</i>	0.1671*** (0.000)	0.2756*** (0.000)	0.2823*** (0.000)	0.2006*** (0.000)	0.2936*** (0.000)	0.2108*** (0.000)
<i>Market-to-book</i>	-0.1127* (0.092)	-0.1394* (0.080)	0.5235** (0.050)	-0.2079** (0.030)	-0.1346* (0.090)	-0.2137** (0.014)
<i>Leverage</i>	-0.8168* (0.073)	-1.2900*** (0.008)	-1.3047* (0.007)	-1.0736** (0.024)	-1.2142** (0.013)	-1.0889** (0.023)
<i>Return on assets</i>	0.4697 (0.630)	1.9444 (0.104)	1.3464 (0.261)	1.9204* (0.096)	2.2243* (0.068)	2.2187* (0.060)
<i>Restate</i>	0.6610*** (0.000)					
<i>Delta</i>		-0.1305** (0.038)	0.0532 (0.628)		-0.1554** (0.015)	
<i>Delta*Market-to-book</i>			-0.0985** (0.043)			
<i>Incentives</i>				0.2346 (0.602)		-0.0233 (0.960)
<i>Delta*Restate</i>					0.0926*** (0.002)	
<i>Incentives*Restate</i>						1.5805*** (0.000)
Pseudo R Squared	0.021	0.022	0.025	0.019	0.029	0.028
N	1,390	1,307	1,307	1,377	1,307	1,377

**Table 10. The Role of CEO Influence and Board Structure in Explaining the Likelihood of Adopting a Clawback Provision**

This table presents results of logit regressions where the dependent variable takes the value of 1 if a firm adopts a clawback provision and 0 otherwise. The independent variables are: natural logarithm of firm size, market-to-book ratio, leverage, ROA, CEO Tenure, CEO Turnover, GIM-Index, board independence measured by the fraction of independent directors, a dummy for CEO-chairman duality, busy directors measured as the fraction of directors that are busy, directors' stock ownership, and board size. All variable definitions are in Appendix B. P-values are in parentheses. \*, \*\*, and \*\*\* represent the 10%, 5% and 1% significant levels, respectively.

<b>Independent Variable</b>	<b>Model 1</b>	<b>Model 2</b>	<b>Model 3</b>	<b>Model 4</b>	<b>Model 5</b>
<i>Size</i>	0.1491*** (0.002)	0.1915*** (0.000)	0.2525*** (0.000)	0.1425*** (0.005)	0.0966 (0.143)
<i>Market-to-book</i>	-0.1137* (0.083)	-0.1960** (0.020)	-0.2425** (0.018)	-0.1747** (0.037)	-0.1889 (0.035)
<i>Leverage</i>	-0.8167* (0.071)	-0.9227* (0.058)	-0.7548 (0.160)	-0.9817** (0.049)	-1.0260* (0.051)
<i>Return on assets</i>	0.2361 (0.792)	1.7158 (0.141)	0.8640 (0.545)	1.3672 (0.245)	1.3628 (0.280)
<i>CEO Turnover</i>	0.2745* (0.059)				
<i>CEO Tenure</i>		-0.0163* (0.085)			
<i>GIM-Index</i>			0.0400 (0.195)		
<i>Board Independence (%)</i>				2.2704** (0.026)	2.0347* (0.067)
<i>CEO Duality</i>					0.1840 (0.241)
<i>Busy Director (%)</i>					0.6550 (0.263)
<i>Director Ownership (%)</i>					-0.2459 (0.884)
<i>Board Size</i>					0.0339 (0.454)
Pseudo R Squared	0.013	0.019	0.025	0.017	0.022
N	1,374	1,274	1,074	1,149	1,098