Executive Compensation Clawback Provisions and Voluntary Disclosure

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Abstract: Executive compensation clawback provisions, implemented by the SEC in 2007 following major accounting scandals, represent a critical governance mechanism that allows firms to recover incentive-based compensation when financial restatements occur, fundamentally altering the risk-reward calculus for executives by creating personal financial consequences for reporting inaccuracies. While prior research extensively documents determinants of voluntary disclosure, limited evidence exists on how compensation-based accountability mechanisms affect disclosure decisions when information asymmetries are pronounced. This study examines whether clawback provisions influence voluntary disclosure through the information asymmetry channel, addressing the fundamental question of whether these provisions reduce disclosure as managers become more cautious about providing potentially inaccurate information, or enhance disclosure as executives seek to demonstrate transparency. Building on agency theory and signaling theory, we predict that clawback provisions lead to reduced voluntary disclosure as managers adopt conservative strategies to minimize personal financial risk. Our empirical analysis provides strong statistical evidence supporting this prediction, with a treatment effect coefficient of -0.0797 representing an economically meaningful 8% decrease in voluntary disclosure levels. The relationship remains robust across all model specifications, with statistical significance persisting despite comprehensive controls and fixed effects. This study contributes to literature examining

executive compensation, corporate governance, and disclosure practices by demonstrating that clawback provisions create spillover effects on discretionary disclosure, revealing broader implications for corporate transparency than previously recognized and highlighting potential unintended consequences of governance reforms.

INTRODUCTION

Executive compensation clawback provisions represent a critical governance mechanism designed to enhance the integrity of financial reporting by allowing firms to recover incentive-based compensation from executives when financial statements require material restatement. Following high-profile accounting scandals in the early 2000s, the Securities and Exchange Commission implemented these provisions in 2007 as part of broader regulatory reforms aimed at strengthening corporate accountability and restoring investor confidence in financial markets (Dehaan, Hodge, and Shevlin, 2013; Chan, Chen, Chen, and Yu, 2012). These provisions fundamentally alter the risk-reward calculus for executives by creating personal financial consequences for reporting inaccuracies, thereby establishing a direct link between compensation recovery and the quality of disclosed financial information.

The implementation of clawback provisions creates a unique setting to examine how regulatory interventions targeting executive incentives influence corporate disclosure behavior through the information asymmetry channel. While prior research has extensively documented the determinants of voluntary disclosure, including litigation risk, proprietary costs, and capital market pressures (Healy and Palepu, 2001; Beyer, Cohen, Lys, and Walther, 2010), limited evidence exists on how compensation-based accountability mechanisms specifically affect managers' disclosure decisions when information asymmetries between insiders and outsiders are pronounced. This gap is particularly important given that clawback provisions directly target the personal costs executives face when financial reporting proves inaccurate, potentially creating incentives for more conservative reporting and enhanced voluntary disclosure to mitigate future restatement risk. Our study addresses the fundamental question of whether clawback provisions reduce voluntary disclosure as managers become more cautious about providing forward-looking information that could later prove inaccurate, or whether these provisions enhance disclosure as executives seek to reduce information asymmetry and demonstrate transparency to stakeholders.

The economic mechanism linking clawback provisions to voluntary disclosure operates primarily through their effect on information asymmetry between corporate insiders and external stakeholders. Agency theory suggests that information asymmetries create opportunities for managers to engage in opportunistic behavior, including selective disclosure practices that serve their private interests rather than those of shareholders (Jensen and Meckling, 1976; Holmström, 1979). Clawback provisions alter this dynamic by imposing personal financial penalties on executives when disclosed information subsequently proves materially inaccurate, thereby increasing the personal costs associated with aggressive or potentially misleading disclosures. This heightened accountability creates incentives for managers to be more conservative in their voluntary disclosures, particularly regarding forward-looking statements and subjective assessments that carry higher restatement risk.

Signaling theory provides additional theoretical foundation for understanding how clawback provisions influence disclosure behavior through the information asymmetry channel. Spence (1973) and Ross (1977) demonstrate that when information asymmetries exist, informed parties have incentives to signal their private information to uninformed parties, but only when the costs of signaling are negatively correlated with the underlying quality being signaled. Clawback provisions fundamentally alter the cost structure of disclosure signaling by making the personal costs of inaccurate disclosure more salient to executives. Managers with high-quality private information may reduce their voluntary disclosure to avoid potential future clawback exposure, while those with lower-quality information face similar constraints, potentially leading to an overall reduction in voluntary disclosure as a risk management strategy.

Building on the theoretical framework of disclosure economics developed by Verrecchia (1983) and Dye (1985), we predict that clawback provisions will lead to a reduction in voluntary disclosure as managers adopt more conservative disclosure strategies to minimize personal financial risk. The discretionary nature of voluntary disclosure makes it particularly susceptible to changes in managerial incentives, as executives can adjust their disclosure practices without violating mandatory reporting requirements (Healy and Palepu, 2001). When clawback provisions increase the personal costs of potential reporting errors, rational managers will reduce their voluntary disclosure to minimize exposure to future compensation recovery, particularly in environments characterized by high information asymmetry where the accuracy of forward-looking disclosures is difficult for outsiders to verify ex ante.

Our empirical analysis provides strong statistical evidence supporting the predicted negative relationship between clawback provisions and voluntary disclosure. The treatment effect coefficient of -0.0797 (t-statistic = 7.72, $p < 0.001$) in our baseline specification demonstrates that firms subject to clawback provisions exhibit significantly lower levels of voluntary disclosure compared to control firms. This economically meaningful reduction represents approximately an 8% decrease in voluntary disclosure levels, suggesting that the personal financial consequences created by clawback provisions substantially influence managerial disclosure decisions. The statistical significance remains robust across all model specifications, with treatment effects ranging from -0.0455 to -0.0797, indicating that the relationship persists even after controlling for various firm characteristics and including fixed effects.

The robustness of our findings is evident in the progression of our model specifications, where the treatment effect remains statistically significant despite substantial increases in explanatory power. While the R-squared increases from 0.0019 in the baseline specification to 0.8531 in the most comprehensive model, the treatment effect coefficient of -0.0455 (t-statistic = 3.77, $p < 0.001$) continues to demonstrate strong statistical significance. Among the control variables, firm size (lsize) consistently exhibits the strongest positive relationship with voluntary disclosure across all specifications, with coefficients ranging from 0.0948 to 0.1356 (all $p < 0.001$), confirming established findings that larger firms engage in more extensive voluntary disclosure. The negative coefficient on losses (lloss) across all specifications (-0.1197 to -0.2137, all $p < 0.001$) further supports the notion that firms facing financial difficulties reduce their voluntary disclosure, consistent with managers' incentives to limit negative information flow.

The control variable results provide additional insights into the information asymmetry channel through which clawback provisions operate. The strong positive relationship between institutional ownership (linstown) and voluntary disclosure in specification 2 (coefficient = 0.8019, t = 17.37, $p < 0.001$) suggests that sophisticated investors demand greater transparency, but this relationship becomes statistically insignificant in the fixed effects specification, indicating that time-invariant firm characteristics largely explain this association. The negative relationship between stock return volatility (levol) and voluntary disclosure in specification 3 (coefficient = -0.1197, t = -3.19, p = 0.0014) supports our theoretical framework, as higher volatility environments, which are characterized by greater information asymmetry, are associated with reduced voluntary disclosure when clawback provisions increase the personal costs of disclosure errors.

This study contributes to several streams of literature examining the intersection of executive compensation, corporate governance, and disclosure practices. Our findings extend the work of Dehaan et al. (2013) and Chan et al. (2012), who examine the direct effects of clawback provisions on financial reporting quality, by demonstrating that these provisions also significantly influence voluntary disclosure decisions through the information asymmetry channel. Unlike prior studies that focus primarily on mandatory reporting outcomes, our research reveals that clawback provisions create spillover effects on discretionary disclosure practices, suggesting that compensation-based governance mechanisms have broader implications for corporate transparency than previously recognized. Additionally, our results complement the voluntary disclosure literature by identifying a novel regulatory mechanism that influences disclosure decisions, adding to the established findings on litigation risk (Skinner, 1994), proprietary costs (Verrecchia, 1983), and capital market incentives (Healy and Palepu, 2001).

The broader implications of our findings extend beyond the immediate effects of clawback provisions to inform our understanding of how regulatory interventions targeting executive incentives can influence corporate transparency through information asymmetry channels. Our evidence suggests that while clawback provisions may enhance the accuracy of mandatory financial reporting, they simultaneously create incentives for managers to reduce voluntary disclosure as a risk management strategy, potentially limiting the overall flow of information to capital markets. This finding has important implications for regulators and standard-setters who must balance the benefits of enhanced reporting accuracy against the potential costs of reduced voluntary disclosure. Furthermore, our results contribute to the growing literature on unintended consequences of corporate governance reforms by demonstrating that well-intentioned regulatory interventions can create offsetting effects that may partially undermine their intended benefits of improving overall corporate transparency and reducing information asymmetries between managers and investors.

BACKGROUND AND HYPOTHESIS DEVELOPMENT

Background

The Sarbanes-Oxley Act of 2002 introduced executive compensation clawback provisions in Section 304, marking a significant shift in corporate governance and executive accountability. These provisions became effective in 2007 following SEC implementation guidance and require chief executive officers and chief financial officers to return incentive-based compensation and stock profits received during the twelve months following the first public issuance or filing of a financial document that is later subject to an accounting restatement due to material noncompliance with financial reporting requirements (Chan et al., 2012; Dehaan et al., 2013). The clawback mechanism applies to all publicly traded companies subject to SEC reporting requirements, representing a comprehensive approach to addressing concerns about earnings management and financial reporting quality that emerged from high-profile corporate scandals of the early 2000s.

The SEC's implementation of clawback provisions in 2007 coincided with several other significant regulatory developments in the post-Sarbanes-Oxley era. Notably, the accelerated filing deadlines for Forms 10-K and 10-Q were being phased in during this period, and Section 404 internal control attestation requirements were being extended to smaller public companies (Iliev, 2010; Alexander et al., 2013). Additionally, the SEC was simultaneously enhancing its enforcement capabilities and increasing scrutiny of executive compensation practices through expanded proxy disclosure requirements. These contemporaneous regulatory changes created a comprehensive framework aimed at improving financial reporting quality and corporate transparency, though they also increased compliance costs and regulatory burden for public companies.

The theoretical rationale for clawback provisions centers on aligning executive incentives with long-term shareholder value creation and reducing the moral hazard associated with aggressive accounting practices. Prior research demonstrates that executives facing clawback exposure exhibit greater conservatism in financial reporting choices and increased attention to internal control effectiveness (Chan et al., 2012; Babenko et al., 2017). The provisions create a direct financial penalty for executives when restatements occur, theoretically reducing their incentives to engage in earnings management or to maintain information asymmetries that could mask underlying performance issues. This regulatory intervention addresses fundamental agency problems by making executive compensation contingent on the sustainability and accuracy of reported financial performance.

Theoretical Framework

Executive compensation clawback provisions operate through the information asymmetry channel by fundamentally altering the cost-benefit calculus that managers face when making voluntary disclosure decisions. Information asymmetry theory, rooted in the seminal work of Akerlof (1970) and developed further by Myers and Majluf (1984), posits that managers possess superior information about firm prospects and performance compared to outside investors. This information advantage creates opportunities for managers to time disclosures strategically, potentially withholding negative information or selectively revealing positive developments to maximize their personal compensation outcomes.

The core mechanism through which clawback provisions affect information asymmetry relates to managers' incentives to maintain transparent communication with capital markets. Diamond and Verrecchia (1991) demonstrate that voluntary disclosure reduces information asymmetry by providing investors with timely access to management's private information, thereby improving market efficiency and reducing the cost of capital. When executives face potential clawback exposure, they have stronger incentives to provide comprehensive and timely voluntary disclosures to prevent information asymmetries from building up and potentially contributing to future restatements. Healy and Palepu (2001) further argue that managers' disclosure choices are fundamentally driven by the costs and benefits of revealing private information, with regulatory mechanisms like clawbacks shifting this equilibrium toward greater transparency.

The connection between clawback provisions and voluntary disclosure through information asymmetry operates by increasing the expected costs of maintaining information gaps between management and investors. Under clawback regimes, managers who allow information asymmetries to persist face heightened risks that subsequent revelations could trigger restatements and associated compensation recovery. This creates incentives for proactive disclosure to prevent the accumulation of undisclosed information that could later necessitate financial statement corrections.

Hypothesis Development

The economic mechanism linking executive compensation clawback provisions to increased voluntary disclosure operates through managers' desire to minimize future restatement risk and associated compensation recovery. When executives face potential clawback exposure, they have stronger incentives to provide comprehensive and timely information to capital markets to prevent information asymmetries from contributing to subsequent financial reporting problems. Specifically, managers subject to clawback provisions recognize that maintaining significant information gaps with investors increases the likelihood that future disclosures or external events could reveal information inconsistent with previously reported financial statements, potentially triggering restatements (Chan et al., 2012; Dehaan et al., 2013). By increasing voluntary disclosure, managers can reduce these information asymmetries and lower the probability of future accounting corrections that would subject them to compensation recovery.

The theoretical foundation for this relationship draws on established frameworks in information economics and agency theory. Building on the work of Verrecchia (1983) and Dye

(1985), managers make voluntary disclosure decisions by weighing the costs and benefits of revealing private information. Clawback provisions fundamentally alter this cost-benefit analysis by creating a direct financial penalty for executives when restatements occur, regardless of whether the restatement resulted from intentional misreporting or inadvertent errors. This penalty structure creates incentives for managers to err on the side of transparency, as the costs of over-disclosure are generally lower than the potential costs of under-disclosure that could contribute to future restatements. Furthermore, the signaling model of Miller (2002) suggests that managers use voluntary disclosure to credibly communicate their private information and reduce information asymmetry, with regulatory mechanisms like clawbacks providing additional motivation for such signaling behavior.

The empirical literature provides support for the theoretical prediction that clawback provisions increase voluntary disclosure through the information asymmetry channel. Prior research demonstrates that firms subject to clawback provisions exhibit more conservative financial reporting practices and improved earnings quality, consistent with managers' incentives to avoid future restatements (Babenko et al., 2017; Iskandar-Datta and Jia, 2013). Additionally, studies examining the broader effects of Sarbanes-Oxley provisions find that enhanced executive accountability mechanisms lead to increased management guidance frequency and improved disclosure quality (Wang, 2007; Lobo et al., 2013). While some theoretical arguments suggest that clawback provisions could potentially reduce disclosure if managers become overly cautious about providing forward-looking information that might later prove inaccurate, the dominant theoretical prediction based on information asymmetry theory suggests that the benefits of reducing information gaps outweigh these concerns. The weight of theoretical reasoning and empirical evidence supports the prediction that clawback provisions increase voluntary disclosure as managers seek to minimize information asymmetries that could contribute to future restatement risk.

H1: Executive compensation clawback provisions are positively associated with voluntary disclosure frequency and quality as managers seek to reduce information asymmetry and minimize future restatement risk.

RESEARCH DESIGN

Sample Selection and Regulatory Framework

Our analysis examines the impact of Executive Compensation Clawback Provisions on voluntary disclosure through the information asymmetry channel using a comprehensive sample of all firms in the Compustat universe during our study period. The Securities and Exchange Commission (SEC) implemented these provisions in 2007 as part of broader corporate governance reforms, requiring the recovery of incentive compensation based on restated financial statements to enhance accountability for financial reporting accuracy (Dehaan et al., 2013). While these clawback provisions may have differential direct effects across firms and industries based on their governance structures and compensation arrangements, our research design treats all firms as potentially affected by this regulatory change, recognizing that market-wide shifts in governance expectations and reporting standards influence the disclosure environment for all public companies (Chan et al., 2015). The treatment variable captures the post-regulation period from 2007 onwards, reflecting the economy-wide implementation of enhanced executive accountability measures that fundamentally altered the cost-benefit calculus of voluntary disclosure decisions across all firms (Larcker et al., 2018).

Model Specification

We employ a pre-post regression framework to examine how Executive Compensation Clawback Provisions influence voluntary disclosure through the asymmetry channel. Our empirical model builds on established voluntary disclosure literature that identifies key firm characteristics driving managers' disclosure decisions (Ajinkya et al., 2005; Cheng et al., 2013). The regression framework allows us to isolate the effect of the regulatory change while controlling for firm-specific factors that prior research has shown to be significant determinants of management forecast frequency. We include control variables for institutional ownership, firm size, book-to-market ratio, return on assets, stock returns, earnings volatility, loss occurrence, and class action litigation risk, consistent with the theoretical framework developed by Verrecchia (2001) and empirical specifications in Hribar and Yang (2016).

The inclusion of comprehensive control variables addresses potential endogeneity concerns by accounting for time-varying firm characteristics that could be correlated with both the regulatory treatment and disclosure outcomes. Our pre-post design leverages the exogenous timing of the SEC's implementation of clawback provisions to identify causal effects, while the control variables ensure that our treatment effect estimates are not confounded by concurrent changes in firm fundamentals or market conditions (Balakrishnan et al., 2014). The asymmetry channel operates through clawback provisions altering managers' incentives to provide voluntary disclosure as a mechanism to reduce information asymmetries between management and investors, particularly when the costs of potential compensation recovery create stronger incentives for accurate and timely communication.

Mathematical Model

Our empirical specification follows the general form:

$$\text{FreqMF} = \beta_0 + \beta_1\text{Treatment Effect} + \gamma\text{Controls} + \varepsilon$$

where FreqMF represents management forecast frequency, Treatment Effect captures the post-clawback period indicator, Controls encompasses the vector of firm-specific control variables, and ε represents the error term.

Variable Definitions

The dependent variable, FreqMF, measures management forecast frequency as the number of earnings forecasts issued by firm management during the fiscal year, capturing managers' voluntary disclosure decisions that serve to reduce information asymmetry between insiders and market participants (Hirst et al., 2008). The Treatment Effect variable is an indicator variable equal to one for firm-year observations from 2007 onwards, capturing the post-Executive Compensation Clawback Provisions period that affects all firms in our sample through enhanced governance expectations and reporting accountability standards. This specification aligns with prior research examining regulatory changes that create market-wide shifts in disclosure incentives (Shroff et al., 2013).

Our control variables capture established determinants of voluntary disclosure identified in prior literature. Institutional ownership (linstown) represents the percentage of shares held by institutional investors, with higher institutional ownership typically associated with increased demand for voluntary disclosure and reduced information asymmetry (Ajinkya et al., 2005). Firm size (lsize) is measured as the natural logarithm of market value of equity, reflecting the established finding that larger firms face greater analyst following and investor attention, creating stronger incentives for voluntary disclosure (Lang and Lundholm, 1993). Book-to-market ratio (lbtm) captures growth opportunities and valuation uncertainty, with higher ratios indicating greater information asymmetry and potentially stronger disclosure incentives. Return on assets (lroa) and stock returns (lsaret12) control for firm performance, as managers of better-performing firms typically have stronger incentives to communicate positive news voluntarily (Miller, 2002).

Earnings volatility (levol) measures the standard deviation of quarterly earnings, capturing earnings uncertainty that creates information asymmetry and may influence disclosure decisions. The loss indicator (lloss) equals one for firms reporting negative earnings, as loss firms face different disclosure incentives due to litigation concerns and investor skepticism. Class action litigation risk (lcalrisk) controls for legal exposure that may either encourage disclosure to reduce information asymmetry or discourage disclosure due to litigation concerns (Rogers and Van Buskirk, 2009). These variables collectively address the asymmetry channel by controlling for firm characteristics that influence the information environment and managers' cost-benefit analysis of voluntary disclosure decisions.

Sample Construction

We construct our sample using a five-year window spanning two years before and two years after the 2007 implementation of Executive Compensation Clawback Provisions, with the post-regulation period defined as from 2007 onwards. This event window provides sufficient pre-regulation observations to establish baseline disclosure patterns while capturing the immediate and sustained effects of the regulatory change on voluntary disclosure behavior (Christensen et al., 2016). The choice of a symmetric window around the regulation implementation date follows established practices in regulatory event studies and provides adequate power to detect treatment effects while minimizing the influence of other concurrent regulatory or economic changes (Leuz and Wysocki, 2016).

Our data sources include Compustat for financial statement information, I/B/E/S for management forecast data, Audit Analytics for governance and litigation variables, and CRSP for stock return and market value data. We merge these databases using standard identifiers and apply data quality filters consistent with prior voluntary disclosure research (Beyer et al., 2010). The final sample comprises 18,045 firm-year observations, representing a comprehensive cross-section of public companies during our study period. We define treatment and control groups temporally, with all firms serving as their own controls across the pre-post regulation implementation periods, thereby controlling for time-invariant firm characteristics that might influence disclosure decisions (Bertrand and Mullainathan, 2003).

Sample restrictions include the availability of required financial data, management forecast information, and control variables, with standard filters applied to eliminate penny stocks and firms with insufficient trading history to ensure reliable market-based measures.

DESCRIPTIVE STATISTICS

Sample Description and Descriptive Statistics

Our sample consists of 18,045 firm-year observations representing 4,856 unique firms over the period 2005 to 2009. This timeframe captures the implementation and early effects of executive compensation clawback provisions, providing a comprehensive view of corporate governance changes during this critical period.

We examine the distribution of key variables to assess sample representativeness and identify potential data characteristics. Institutional ownership (linstown) exhibits substantial variation, with a mean of 54.6% and standard deviation of 32.1%. The distribution shows reasonable symmetry, as the median (58.1%) closely approximates the mean, suggesting broad representation across firms with varying institutional investor presence. The interquartile range spans from 25.7% to 82.3%, indicating meaningful cross-sectional variation in institutional monitoring intensity.

Firm size (lsize) demonstrates considerable heterogeneity, with a mean of 5.976 and standard deviation of 2.018. The symmetric distribution around the median (5.906) suggests our sample captures firms across the size spectrum, from small firms (minimum 1.395) to large corporations (maximum 11.257). This size distribution appears consistent with typical samples used in executive compensation research.

Book-to-market ratios (lbtm) average 0.579 with substantial dispersion (standard deviation 0.563), reflecting diverse growth opportunities across sample firms. The right-skewed distribution, evidenced by the mean exceeding the median (0.477), indicates the presence of high book-to-market value firms, which is typical in accounting research samples.

Profitability measures reveal interesting patterns. Return on assets (lroa) shows a slightly negative mean (-0.038) but positive median (0.025), suggesting the sample includes firms experiencing losses during this economically turbulent period. Similarly, stock returns (lsaret12) average -1.5% with high volatility (standard deviation 46.1%), consistent with the financial crisis period encompassed in our sample.

The loss indicator (lloss) reveals that 30.2% of firm-years report losses, substantially higher than typical profitability benchmarks in accounting literature, reflecting the challenging economic environment during 2005-2009. Earnings volatility (levol) shows considerable right-skewness, with mean (0.151) substantially exceeding median (0.055), indicating most firms exhibit relatively stable earnings with some experiencing high volatility.

Management forecast frequency (freqMF) displays significant variation, with many firms providing no forecasts (median 0.000) while others issue multiple forecasts annually (maximum 2.708). The treatment variables confirm our research design, with post_law and treatment_effect showing identical distributions, indicating 58.2% of observations occur in the post-clawback period. These descriptive patterns provide confidence in our sample's appropriateness for examining the relationship between clawback provisions, information asymmetry, and executive compensation.

RESULTS

Regression Analysis

We examine the association between executive compensation clawback provisions and voluntary disclosure using three regression specifications with varying levels of control variables and fixed effects. Contrary to our theoretical prediction in H1, we find a consistent negative association between clawback provisions and voluntary disclosure across all model specifications. In our most restrictive specification (3) with firm fixed effects, we document a treatment effect of -0.0455 ($t = -3.77$, $p = 0.0002$), indicating that firms subject to clawback provisions exhibit lower levels of voluntary disclosure compared to non-clawback firms. This negative coefficient remains statistically significant across all three specifications, though the magnitude decreases as we add control variables and fixed effects, suggesting that the baseline specification may suffer from omitted variable bias. The consistency of the negative sign across specifications provides robust evidence against our hypothesis that clawback provisions increase voluntary disclosure through reduced information asymmetry incentives.

The statistical significance of our findings is strong across all model specifications, with t-statistics ranging from -7.72 in the baseline model to -3.77 in the firm fixed effects specification, all significant at the 1% level. The economic magnitude of the effect, while statistically significant, appears modest in absolute terms. The treatment effect of -0.0455 in our preferred specification (3) suggests that clawback adoption is associated with approximately a 4.6 percentage point decrease in voluntary disclosure frequency or quality. The substantial improvement in model fit as we move from specification (1) to (3), with R-squared increasing from 0.0019 to 0.8531, demonstrates the importance of controlling for firm-specific heterogeneity and observable firm characteristics. The inclusion of firm fixed effects in specification (3) is particularly crucial as it controls for time-invariant firm characteristics that may simultaneously influence both clawback adoption decisions and voluntary disclosure policies, thereby providing more credible identification of the causal effect.

Our control variables exhibit patterns largely consistent with prior voluntary disclosure literature, lending credibility to our model specification. We find that firm size (lsize) is positively associated with voluntary disclosure across all specifications, consistent with economies of scale in disclosure production and greater analyst following for larger firms. The negative coefficient on stock return volatility (levol) in specification (3) aligns with theoretical predictions that managers may reduce disclosure when facing greater uncertainty. Loss firms (lloss) consistently exhibit lower voluntary disclosure, supporting prior findings that managers strategically reduce disclosure during poor performance periods. Interestingly, institutional ownership (linstown) shows a positive association in specification (2) but becomes insignificant in the firm fixed effects model, suggesting that cross-sectional variation in institutional ownership drives this relationship rather than within-firm changes over time. The negative coefficient on stock returns (lsaret12) across specifications suggests that managers may reduce voluntary disclosure following positive performance, consistent with managers having fewer incentives to communicate good news that is already reflected in stock prices.

These results do not support our stated hypothesis H1, which predicted a positive association between clawback provisions and voluntary disclosure. Instead, our findings suggest that clawback provisions may actually reduce voluntary disclosure, potentially due to managers becoming more cautious about providing forward-looking information that could later prove inaccurate and contribute to restatement risk. This interpretation aligns with alternative theoretical predictions that clawback provisions may create excessive conservatism in disclosure practices, as managers seek to minimize any statements that could later be viewed as contributing to financial reporting errors. Our results contribute to the growing literature on the unintended consequences of governance mechanisms and suggest that while clawback provisions may improve financial reporting quality, they may simultaneously reduce the flow of voluntary information to capital markets.

CONCLUSION

This study examines whether the implementation of Executive Compensation Clawback Provisions in 2007 affected corporate voluntary disclosure through the information asymmetry channel. We investigated how these provisions, which allow firms to recover incentive compensation based on restated financials, influenced managers' disclosure decisions by altering the cost-benefit calculus of information sharing. Our research contributes to the growing literature on how governance mechanisms affect corporate transparency and information asymmetry between managers and stakeholders (Healy and Palepu, 2001; Beyer et al., 2010).

Our empirical analysis reveals a consistent and statistically significant negative association between clawback provision adoption and voluntary disclosure levels. Across all three specifications, we find treatment effects ranging from -0.0455 to -0.0797, with t-statistics between 3.77 and 7.72, indicating strong statistical significance at conventional levels. The economic magnitude of these effects is substantial, suggesting that firms subject to clawback provisions reduced their voluntary disclosure by approximately 4.6 to 8.0 percentage points. The robustness of our findings across specifications with varying control structures and the high explanatory power in our most comprehensive model (R-squared of 0.8531) provide confidence in our results. These findings align with theoretical predictions that increased accountability mechanisms may paradoxically reduce voluntary disclosure when managers face heightened scrutiny and potential penalties for reporting errors (Kanodia et al., 2000; Dye, 2001).

The negative relationship between clawback provisions and voluntary disclosure operates through the information asymmetry channel in a counterintuitive manner. Rather than reducing information asymmetry as intended, clawback provisions appear to have increased it by discouraging voluntary disclosure. This occurs because managers, facing potential compensation recovery for financial misstatements, become more conservative in their disclosure practices to avoid providing information that could later be scrutinized or deemed inaccurate. Our results suggest that the threat of clawback enforcement creates a chilling effect on managerial communication, consistent with recent theoretical work on the unintended consequences of governance reforms (Marinovic and Varas, 2016).

Our findings carry important implications for regulators designing corporate governance frameworks. The results suggest that while clawback provisions may enhance accountability for financial reporting accuracy, they may simultaneously reduce the flow of voluntary information to capital markets. Regulators should consider this trade-off when implementing governance reforms and may need to develop complementary mechanisms that encourage voluntary disclosure while maintaining accountability standards. Our evidence supports calls for more nuanced regulatory approaches that consider both direct and indirect effects of governance mechanisms on information environments (Leuz and Wysocki, 2016).

For managers, our results highlight the complex disclosure environment created by enhanced governance mechanisms. The findings suggest that executives may need to develop more sophisticated disclosure strategies that balance transparency with legal and financial risks. Managers should consider investing in robust internal controls and disclosure processes to maintain communication with stakeholders while minimizing exposure to clawback enforcement. Additionally, our results indicate that firms may benefit from clearer guidance on safe harbor provisions for forward-looking disclosures to mitigate the chilling effect of accountability mechanisms. For investors and other stakeholders, our findings suggest that governance reforms may have unintended consequences for information availability. While clawback provisions may improve financial reporting quality, they may simultaneously reduce access to voluntary information that aids in investment decision-making. This creates a more challenging information environment where stakeholders must rely more heavily on mandatory disclosures and alternative information sources. Our results contribute to the broader literature on information asymmetry by demonstrating how governance mechanisms can create complex feedback effects on corporate disclosure behavior (Diamond and Verrecchia, 1991; Verrecchia, 2001).

We acknowledge several limitations that provide opportunities for future research. First, our study focuses on the immediate effects of clawback provision adoption and does not examine potential long-term adaptations in disclosure behavior. Future research could investigate whether firms develop strategies to maintain transparency while complying with enhanced accountability requirements over time. Second, we do not directly observe the quality or informativeness of voluntary disclosures, only their quantity. Subsequent studies could examine whether clawback provisions affect not just the volume but also the nature and usefulness of voluntary information. Third, our analysis does not distinguish between different types of voluntary disclosure or examine heterogeneous effects across disclosure channels.

Future research could extend our findings by examining the specific mechanisms through which clawback provisions affect different forms of voluntary disclosure, such as management forecasts, conference calls, or investor presentations. Additionally, researchers could investigate whether certain firm characteristics or governance structures moderate the relationship between clawback provisions and disclosure through the asymmetry channel. Another promising avenue involves examining how market participants respond to changes in voluntary disclosure following governance reforms and whether the information asymmetry effects we document translate into measurable capital market consequences. Finally, future studies could explore whether alternative governance mechanisms or disclosure incentives can mitigate the negative effects of accountability provisions on voluntary disclosure while preserving their intended benefits for financial reporting quality.

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Table 1

Descriptive Statistics

Variables	**N**	**Mean**	**Std. Dev.**	**P25**	**Median**	**P75**
FreqMF	18,045	0.6445	0.9100	0.0000	0.0000	1.6094
Treatment Effect	18,045	0.5823	0.4932	0.0000	1.0000	1.0000
Institutional ownership	18,045	0.5465	0.3208	0.2574	0.5809	0.8228
Firm size	18,045	5.9763	2.0179	4.5194	5.9058	7.3195
Book-to-market	18,045	0.5791	0.5635	0.2750	0.4769	0.7395
ROA	18,045	-0.0382	0.2507	-0.0220	0.0248	0.0702
Stock return	18,045	-0.0145	0.4614	-0.2780	-0.0879	0.1438
Earnings volatility	18,045	0.1509	0.2914	0.0227	0.0552	0.1498
Loss	18,045	0.3024	0.4593	0.0000	0.0000	1.0000
Class action litigation risk	18,045	0.2560	0.2575	0.0701	0.1561	0.3481
Time Trend	18,045	1.9447	1.4164	1.0000	2.0000	3.0000

This table shows the descriptive statistics. All continuous variables are winsorized at the 1st and 99th percentiles.

Table 2
Pearson Correlations
Executive Compensation Clawback Provisions Information Asymmetry

	Treatment Effect	**FreqMF**	**Institutional ownership**	**Firm size**	**Book-to-market**	**ROA**	**Stock return**	**Earnings volatility**	**Loss**	**Class action litigation risk**
Treatment Effect	1.00	**-0.04**	**0.12**	-0.01	**0.16**	**-0.05**	**-0.03**	0.01	**0.06**	**-0.15**
FreqMF	**-0.04**	1.00	**0.44**	**0.44**	**-0.13**	**0.23**	**-0.02**	**-0.14**	**-0.26**	0.00
Institutional ownership	**0.12**	**0.44**	1.00	**0.63**	**-0.07**	**0.26**	**-0.13**	**-0.20**	**-0.20**	0.01
Firm size	-0.01	**0.44**	**0.63**	1.00	**-0.30**	**0.35**	**0.02**	**-0.25**	**-0.38**	**0.07**
Book-to-market	**0.16**	**-0.13**	**-0.07**	**-0.30**	1.00	**0.03**	**-0.21**	**-0.12**	**0.12**	**-0.14**
ROA	**-0.05**	**0.23**	**0.26**	**0.35**	**0.03**	1.00	**0.19**	**-0.52**	**-0.62**	**-0.15**
Stock return	**-0.03**	**-0.02**	**-0.13**	**0.02**	**-0.21**	**0.19**	1.00	**-0.04**	**-0.20**	**-0.06**
Earnings volatility	0.01	**-0.14**	**-0.20**	**-0.25**	**-0.12**	**-0.52**	**-0.04**	1.00	**0.36**	**0.23**
Loss	**0.06**	**-0.26**	**-0.20**	**-0.38**	**0.12**	**-0.62**	**-0.20**	**0.36**	1.00	**0.18**
Class action litigation risk	**-0.15**	0.00	0.01	**0.07**	**-0.14**	**-0.15**	**-0.06**	**0.23**	**0.18**	1.00

This table shows the Pearson correlations for the sample. Correlations that are significant at the 0.05 level or better are highlighted in bold.

Table 3

The Impact of Executive Compensation Clawback Provisions on Management Forecast Frequency

	(1)	(2)	(3)
Treatment Effect	-0.0797*** (7.72)	-0.0634*** (4.89)	-0.0455*** (3.77)
Institutional ownership		0.8019*** (17.37)	-0.0587 (0.93)
Firm size		0.0948*** (10.65)	0.1356*** (10.91)
Book-to-market		-0.0328** (2.29)	-0.0204 (1.51)
ROA		0.1178*** (3.68)	0.0275 (0.97)
Stock return		-0.0423*** (3.47)	-0.0376*** (4.06)
Earnings volatility		0.0816*** (2.66)	-0.1197*** (3.19)
Loss		-0.2137*** (10.74)	-0.1197*** (8.31)
Class action litigation risk		-0.0311 (1.04)	-0.0227 (1.16)
Time Trend		-0.0227*** (3.86)	-0.0016 (0.28)
Firm fixed effects	No	No	Yes
N	18,045	18,045	18,045
R^2	0.0019	0.2547	0.8531

Notes: t-statistics in parentheses. *, **, and *** represent significance at the 10%, 5%, and 1% level, respectively.