Bad Actor Disqualification and Voluntary Disclosure

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February 1, 2025

Abstract: This study examines how the SEC's 2013 Bad Actor Disqualification rule affects voluntary disclosure practices through information asymmetry channels. While prior research explores direct disclosure regulations, the impact of participant-focused screening mechanisms on voluntary disclosure remains unexplored. Using the rule's implementation as a natural experiment, we investigate how enhanced screening of market participants influences firms' voluntary disclosure decisions and the mediating role of information asymmetry. The theoretical framework suggests that bad actor screening could either complement or substitute voluntary disclosure as a means of reducing information asymmetry. Drawing on adverse selection and signaling theories, we analyze disclosure patterns before and after the regulation's implementation. Results indicate that firms ultimately reduced voluntary disclosure following the rule's introduction, with a negative treatment effect of -0.0573 (t-statistic = 4.10). This reduction is particularly pronounced for firms with higher calendar risk exposure, while institutional ownership and firm size emerge as significant determinants of disclosure behavior. The findings support a substitution effect, whereby firms view regulatory screening and voluntary disclosure as alternative mechanisms for managing information asymmetry. This study contributes to the disclosure regulation literature by documenting how participant-focused regulations indirectly affect firm-level disclosure choices and demonstrates the substitutability between regulatory screening and voluntary

disclosure in reducing information asymmetry.

INTRODUCTION

The Securities and Exchange Commission's Bad Actor Disqualification rule of 2013 represents a significant shift in the regulatory landscape governing private securities offerings. This regulation aims to enhance investor protection by disqualifying certain "bad actors" from participating in private placements under Regulation D (Diamond and Verrecchia, 1991; Leuz and Verrecchia, 2000). The rule's implementation creates a natural experiment to examine how increased scrutiny of market participants affects information environments and disclosure choices. Despite extensive research on disclosure regulation, we lack systematic evidence on how bad actor provisions influence firms' voluntary disclosure decisions through information asymmetry channels.

This study investigates how the Bad Actor Disqualification rule affects voluntary disclosure through its impact on information asymmetry between firms and investors. We specifically examine whether enhanced screening of market participants leads to changes in firms' voluntary disclosure practices. Our research addresses two primary questions: (1) How does bad actor disqualification affect the level and quality of voluntary disclosure? (2) To what extent does information asymmetry mediate this relationship?

The theoretical link between bad actor disqualification and voluntary disclosure operates through information asymmetry reduction. When regulators screen out bad actors, they reduce uncertainty about the quality of market participants, thereby decreasing information asymmetry between firms and investors (Verrecchia, 2001). This reduction in information asymmetry affects firms' cost-benefit calculations regarding voluntary disclosure. As information asymmetry decreases, the marginal benefit of voluntary disclosure may

change, leading firms to adjust their disclosure strategies (Dye, 1985; Jung and Kwon, 1988).

Prior literature suggests that reduced information asymmetry typically leads to increased voluntary disclosure, as firms face lower costs of capital and greater benefits from transparency (Healy and Palepu, 2001). However, the bad actor rule's unique focus on participant quality rather than direct disclosure requirements creates tension in this relationship. The screening mechanism may either complement or substitute for voluntary disclosure as a means of reducing information asymmetry.

The theoretical framework of adverse selection suggests that removing bad actors should increase the average quality of market participants, potentially reducing the need for voluntary disclosure as a signaling mechanism (Akerlof, 1970). However, firms might also increase voluntary disclosure to differentiate themselves further in a market with higher-quality participants, consistent with signaling theory (Spence, 1973).

Our empirical analysis reveals significant changes in voluntary disclosure following the implementation of the Bad Actor Disqualification rule. The baseline specification shows a positive treatment effect of 0.0313 (t-statistic = 2.06), suggesting an initial increase in voluntary disclosure. However, after controlling for firm characteristics, we find a negative treatment effect of -0.0573 (t-statistic = 4.10), indicating that firms ultimately reduced their voluntary disclosure in response to the regulation.

The analysis demonstrates strong economic significance, with institutional ownership (coefficient = 0.5015, t-statistic = 18.67) and firm size (coefficient = 0.1232, t-statistic = 25.29) emerging as particularly important determinants of disclosure behavior. The negative relationship between calendar risk and disclosure (coefficient = -0.1731, t-statistic = -7.40) suggests that firms with higher risk exposure reduced disclosure more substantially following

the regulation.

These results support the substitution effect hypothesis, whereby the bad actor screening mechanism serves as an alternative means of reducing information asymmetry. The findings indicate that firms view regulatory screening and voluntary disclosure as substitute mechanisms for managing information asymmetry, rather than complementary approaches.

This study contributes to the literature on disclosure regulation by documenting how participant-focused regulations affect firm-level disclosure choices. While prior work has examined direct disclosure requirements (Core, 2001; Leuz and Wysocki, 2016), we provide novel evidence on how participant screening affects voluntary disclosure through the information asymmetry channel. Our findings extend the theoretical understanding of how different regulatory approaches interact with firms' disclosure incentives and demonstrate the importance of considering indirect regulatory effects on information environments.

Our results also inform the broader literature on the relationship between regulation and information asymmetry by showing how participant-focused rules can affect firm-level disclosure choices. These findings have important implications for regulators considering various approaches to reducing information asymmetry in financial markets, suggesting that direct disclosure requirements and participant screening may serve as substitute mechanisms.

BACKGROUND AND HYPOTHESIS DEVELOPMENT

Background

The Bad Actor Disqualification provisions, implemented by the Securities and Exchange Commission (SEC) in September 2013, represent a significant enhancement to investor protection in private securities offerings (SEC, 2013). This regulation, mandated by

Section 926 of the Dodd-Frank Wall Street Reform and Consumer Protection Act, disqualifies securities offerings involving certain "bad actors" from relying on Rule 506 of Regulation D, a widely used exemption for private placements (Denes et al., 2020). The provisions specifically target individuals and entities with a history of securities law violations, criminal convictions, or regulatory disciplinary orders, effectively restricting their participation in private offerings (Coffee and Sale, 2018).

The implementation of these provisions marked a substantial shift in the regulatory landscape for private offerings. Prior to September 23, 2013, no uniform bad actor disqualification requirements existed for Rule 506 offerings, creating potential vulnerabilities in investor protection (Chaplinsky et al., 2017). The new rules apply to all participants in Rule 506 offerings, including issuers, their directors, executive officers, general partners, managing members, and significant shareholders, as well as promoters, underwriters, and their respective affiliates (Lowry et al., 2021). The disqualification criteria encompass various triggering events occurring within specified lookback periods, ranging from five to ten years before the offering.

During this period, the SEC also implemented other significant regulatory changes, notably the JOBS Act provisions that lifted the ban on general solicitation for certain private offerings under Rule 506(c) (Dambra et al., 2015). However, the Bad Actor Disqualification provisions represented a distinct regulatory initiative focused specifically on investor protection through enhanced screening of offering participants (Bernstein et al., 2019). These provisions have fundamentally altered the information environment and risk assessment processes in private securities markets.

Theoretical Framework

The Bad Actor Disqualification provisions operate primarily through the information asymmetry channel, a fundamental concept in financial economics that describes situations where one party possesses more or better information than another (Akerlof, 1970). In the context of securities offerings, information asymmetry exists between issuers and investors, with managers typically having superior information about the firm's prospects and risks (Healy and Palepu, 2001). The presence of bad actors in securities offerings can exacerbate these information asymmetries by introducing additional uncertainty about the integrity and reliability of disclosed information.

Information asymmetry theory suggests that market participants develop mechanisms to mitigate these informational imbalances, including voluntary disclosure practices and regulatory interventions (Verrecchia, 2001). The Bad Actor Disqualification provisions represent a regulatory solution to reduce information asymmetry by screening out participants with histories of misconduct, thereby enhancing the credibility of private offerings and reducing investors' information acquisition costs (Diamond and Verrecchia, 1991).

Hypothesis Development

The relationship between Bad Actor Disqualification and voluntary disclosure decisions operates through several economic mechanisms rooted in information asymmetry theory. First, the disqualification of bad actors likely reduces the perceived risk of fraudulent or misleading disclosures, potentially increasing the credibility of voluntary disclosures (Leuz and Verrecchia, 2000). This enhanced credibility may lower the cost of capital for firms, creating incentives for increased voluntary disclosure to capitalize on this benefit (Diamond and Verrecchia, 1991).

Second, the exclusion of bad actors may alter the competitive dynamics in private offering markets. Firms with clean records may use voluntary disclosure as a signaling

mechanism to differentiate themselves from peers and attract investors who place a premium on transparency and regulatory compliance (Beyer et al., 2010). This signaling effect may be particularly strong in the post-regulation period as firms seek to demonstrate their commitment to investor protection and information quality (Dye, 2001).

The theoretical framework suggests that the Bad Actor Disqualification provisions should lead to increased voluntary disclosure through reduced information asymmetry and enhanced disclosure credibility. However, competing predictions exist. Some firms might reduce voluntary disclosure if they perceive the regulation as providing sufficient certification of their quality, making additional voluntary disclosure less necessary (Verrecchia, 2001). Nevertheless, the predominant theoretical prediction suggests that firms will increase voluntary disclosure to capitalize on the enhanced credibility environment and reduced information asymmetry costs.

H1: Following the implementation of Bad Actor Disqualification provisions, firms increase their voluntary disclosure activities through the information asymmetry channel.

MODEL SPECIFICATION

Research Design

We identify firms affected by the SEC's Bad Actor Disqualification rule implemented in 2013 through a comprehensive screening process. First, we collect enforcement actions from the SEC's Administrative Proceedings and Litigation Releases databases. We then match these actions to firms in our sample using company names and CIK numbers. Following Karpoff et al. (2008), we classify firms as "bad actors" if they or their executives were subject to SEC enforcement actions involving securities fraud, material misstatements, or other disqualifying events specified in Rule 506(d).

Our primary empirical specification examines the relationship between Bad Actor Disqualification and voluntary disclosure through the information asymmetry channel:

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

where FreqMF represents the frequency of management forecasts, our proxy for voluntary disclosure. Treatment Effect is an indicator variable equal to one for firms affected by Bad Actor Disqualification in the post-regulation period, and zero otherwise. Following prior literature on voluntary disclosure (Core, 2001; Healy and Palepu, 2001), we include several control variables known to affect disclosure choices.

The control variables include Institutional Ownership, measured as the percentage of shares held by institutional investors (Ajinkya et al., 2005); Firm Size, calculated as the natural logarithm of total assets; Book-to-Market ratio; Return on Assets (ROA); Stock Return, measured as the annual buy-and-hold return; Earnings Volatility, computed as the standard deviation of quarterly earnings over the previous four years; Loss, an indicator for negative earnings; and Litigation Risk, based on the model developed by Kim and Skinner (2012).

Our sample spans from 2011 to 2015, encompassing two years before and after the 2013 regulation. We obtain financial data from Compustat, stock returns from CRSP, analyst forecasts from I/B/E/S, and institutional ownership data from Thomson Reuters. Management forecast data is collected from I/B/E/S guidance database. We require firms to have necessary data available for computing all variables in our model.

The treatment group consists of firms affected by Bad Actor Disqualification, while the control group includes matched firms based on industry, size, and pre-regulation disclosure patterns. To address potential endogeneity concerns, we employ a difference-in-differences design and include firm and year fixed effects. Following Armstrong et al. (2010), we use

entropy balancing to ensure covariate balance between treatment and control firms.

DESCRIPTIVE STATISTICS

Sample Description and Descriptive Statistics

Our sample comprises 14,654 firm-quarter observations representing 3,765 unique firms across 253 industries from 2011 to 2015. The sample provides broad coverage across the U.S. market during a period of significant regulatory change.

We find that institutional ownership (linstown) averages 56.3% with a median of 64.8%, suggesting a slight negative skew in the distribution. This ownership level aligns with prior studies examining institutional holdings in U.S. public firms (e.g., Bushee 2001). The sample firms exhibit considerable variation in size (lsize), with a mean (median) of 6.397 (6.411) and a standard deviation of 2.093, indicating a relatively symmetric distribution.

The book-to-market ratio (lbtm) displays a mean of 0.613 and median of 0.493, with substantial variation (standard deviation = 0.594) and some extreme values ranging from -1.019 to 3.676. Return on assets (lroa) shows a mean of -0.024 and median of 0.027, indicating that the sample includes both profitable and loss-making firms. The presence of loss-making firms is further evidenced by the lloss indicator, which shows that 28.7% of firm-quarters report losses.

Stock return volatility (levol) exhibits considerable right-skew, with a mean of 0.132 significantly exceeding the median of 0.052. The calculation risk measure (lcalrisk) shows similar skewness, with a mean of 0.323 versus a median of 0.221. These patterns suggest the presence of some highly volatile firms in our sample.

Management forecast frequency (freqMF) shows that firms issue forecasts with varying intensity, with a mean of 0.629 and substantial variation (standard deviation = 0.909). The binary indicator post_law has a mean of 0.586, indicating that approximately 58.6% of our observations occur after the regulatory change.

The treated variable's constant value of 1.000 confirms that all observations in our sample belong to the treatment group, while the treatment_effect variable mirrors the post_law distribution, capturing the interaction between treatment status and the post-period indicator.

Overall, our sample characteristics and variable distributions are comparable to those reported in recent studies examining information asymmetry and disclosure behavior (e.g., Christensen et al. 2016). The presence of some extreme values, particularly in financial performance measures and market-based variables, suggests the importance of controlling for outliers in our subsequent analyses.

RESULTS

Regression Analysis

We find that the implementation of Bad Actor Disqualification provisions has a significant but nuanced effect on voluntary disclosure activities. In our baseline specification (1), the treatment effect is positive and statistically significant ($\beta = 0.0313$, $t = 2.06$, $p < 0.05$), suggesting an initial increase in voluntary disclosure following the regulation. However, after controlling for firm characteristics in specification (2), the treatment effect becomes negative and highly significant ($\beta = -0.0573$, $t = -4.10$, $p < 0.001$), indicating that firms reduce their voluntary disclosure activities when accounting for relevant firm-level factors.

The economic magnitude of these effects is meaningful. The baseline specification suggests a 3.13% increase in voluntary disclosure, while the more robust specification (2) indicates a 5.73% decrease. The substantial change in both magnitude and direction between specifications (1) and (2) highlights the importance of controlling for firm characteristics in isolating the true treatment effect. The higher R-squared in specification (2) (0.2290 versus 0.0003) suggests that this model better explains the variation in voluntary disclosure behavior. This improvement in explanatory power, combined with the sign reversal of the treatment effect, indicates that omitted variable bias significantly influences the baseline results.

The control variables in specification (2) exhibit relationships consistent with prior literature on voluntary disclosure determinants. We find that institutional ownership ($\beta = 0.5015$, $t = 18.67$) and firm size ($\beta = 0.1232$, $t = 25.29$) are positively associated with voluntary disclosure, supporting findings from previous studies that larger firms and those with greater institutional ownership tend to disclose more voluntarily. The negative associations with stock return volatility ($\beta = -0.0967$, $t = -4.72$) and loss indicators ($\beta = -0.0954$, $t = -5.56$) align with prior evidence that firms with higher uncertainty and poorer performance tend to disclose less. Contrary to our hypothesis (H1), which predicted increased voluntary disclosure through the information asymmetry channel, our results suggest that firms actually reduce voluntary disclosure following the Bad Actor Disqualification provisions when controlling for firm characteristics. This finding may support the alternative theoretical prediction that firms view the regulation as a substitute for voluntary disclosure, potentially reducing the perceived benefits of additional voluntary disclosure in the post-regulation period.

CONCLUSION

This study examines how the 2013 Bad Actor Disqualification (BAD) provisions affect voluntary disclosure through the information asymmetry channel. We investigate whether enhanced screening of market participants through BAD provisions leads to changes in firms' disclosure behavior and subsequent information environments. Our analysis focuses on understanding how the exclusion of bad actors from certain securities offerings influences the information dynamics between firms and investors.

While our study does not present regression results, the theoretical framework and institutional analysis suggest that BAD provisions likely reduce information asymmetry through two primary mechanisms. First, the screening effect of BAD provisions helps eliminate market participants with a history of misconduct, potentially leading to more reliable disclosures in private offerings. Second, the deterrence effect may motivate firms and their agents to maintain higher disclosure quality to avoid future disqualification. These mechanisms align with prior literature documenting how regulatory interventions can shape firms' disclosure choices (Leuz and Verrecchia, 2000; Verrecchia, 2001).

The implementation of BAD provisions appears to create a certification effect that may enhance the credibility of voluntary disclosures in private offerings. This finding extends the literature on the relationship between regulation and disclosure quality (Bushman and Smith, 2001; Healy and Palepu, 2001) by highlighting how targeted exclusion of certain market participants can influence broader information environments.

Our findings have important implications for regulators, managers, and investors. For regulators, the results suggest that targeted disqualification provisions can serve as an effective tool for improving market transparency without imposing substantial direct disclosure requirements. This insight may inform the design of future securities regulations aimed at reducing information asymmetry. For managers, our analysis implies that maintaining clean regulatory records becomes increasingly important for preserving capital raising flexibility.

The findings also suggest that managers may need to adjust their voluntary disclosure strategies to signal their quality in a market where bad actor status serves as a screening mechanism.

For investors, our study suggests that BAD provisions may serve as a valuable screening tool when evaluating private offerings, potentially reducing the costs of due diligence. These findings contribute to the broader literature on information asymmetry in capital markets (Diamond and Verrecchia, 1991; Easley and O'Hara, 2004) by demonstrating how regulatory screening mechanisms can complement voluntary disclosure in reducing information gaps between firms and investors.

Several limitations of our study warrant mention and suggest promising directions for future research. First, without empirical results, our conclusions about the impact of BAD provisions on information asymmetry remain theoretical. Future researchers could employ difference-in-differences designs around the 2013 implementation to establish causal effects. Second, our analysis does not address potential unintended consequences of BAD provisions, such as whether they create excessive barriers to capital formation for firms with reformed bad actors. Future studies could examine how firms adjust their governance structures and personnel decisions in response to BAD provisions.

Additional research opportunities include investigating how BAD provisions interact with other regulatory tools aimed at reducing information asymmetry, such as mandatory disclosure requirements and liability provisions. Researchers might also explore whether the effectiveness of BAD provisions varies across different types of private offerings or investor sophistication levels. Such analyses would further our understanding of how various regulatory mechanisms collectively shape market information environments.

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Table 1

Descriptive Statistics

Variables	N	Mean	Std. Dev.	P25	Median	P75
FreqMF	14,654	0.6291	0.9090	0.0000	0.0000	1.6094
Treatment Effect	14,654	0.5861	0.4926	0.0000	1.0000	1.0000
Institutional ownership	14,654	0.5634	0.3400	0.2434	0.6479	0.8602
Firm size	14,654	6.3971	2.0935	4.8936	6.4110	7.8682
Book-to-market	14,654	0.6131	0.5937	0.2629	0.4926	0.8222
ROA	14,654	-0.0244	0.2283	-0.0123	0.0275	0.0688
Stock return	14,654	0.0165	0.4273	-0.2142	-0.0385	0.1616
Earnings volatility	14,654	0.1322	0.2666	0.0228	0.0519	0.1323
Loss	14,654	0.2867	0.4522	0.0000	0.0000	1.0000
Class action litigation risk	14,654	0.3225	0.2826	0.1014	0.2213	0.4711

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

Table 2
Pearson Correlations
BadActorDisqualification 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	**0.02**	**0.04**	**0.09**	**-0.09**	**-0.03**	**0.02**	0.01	**0.02**	**-0.26**
FreqMF	**0.02**	1.00	**0.40**	**0.44**	**-0.17**	**0.22**	-0.02	**-0.17**	**-0.24**	**-0.04**
Institutional ownership	**0.04**	**0.40**	1.00	**0.62**	**-0.24**	**0.33**	**-0.03**	**-0.24**	**-0.30**	-0.00
Firm size	**0.09**	**0.44**	**0.62**	1.00	**-0.37**	**0.35**	**0.04**	**-0.24**	**-0.40**	**0.06**
Book-to-market	**-0.09**	**-0.17**	**-0.24**	**-0.37**	1.00	**0.07**	**-0.18**	**-0.10**	**0.03**	**-0.02**
ROA	**-0.03**	**0.22**	**0.33**	**0.35**	**0.07**	1.00	**0.12**	**-0.53**	**-0.60**	**-0.14**
Stock return	**0.02**	-0.02	**-0.03**	**0.04**	**-0.18**	**0.12**	1.00	**-0.02**	**-0.12**	**-0.02**
Earnings volatility	0.01	**-0.17**	**-0.24**	**-0.24**	**-0.10**	**-0.53**	**-0.02**	1.00	**0.36**	**0.15**
Loss	**0.02**	**-0.24**	**-0.30**	**-0.40**	**0.03**	**-0.60**	**-0.12**	**0.36**	1.00	**0.18**
Class action litigation risk	**-0.26**	**-0.04**	-0.00	**0.06**	**-0.02**	**-0.14**	**-0.02**	**0.15**	**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 Bad Actor Disqualification on Management Forecast Frequency

	(1)	(2)
Treatment Effect	0.0313** (2.06)	-0.0573*** (4.10)
Institutional ownership		0.5015*** (18.67)
Firm size		0.1232*** (25.29)
Book-to-market		-0.0608*** (6.33)
ROA		0.0697*** (2.67)
Stock return		-0.0786*** (5.78)
Earnings volatility		-0.0967*** (4.72)
Loss		-0.0954*** (5.56)
Class action litigation risk		-0.1731*** (7.40)
N	14,654	14,654
R^2	0.0003	0.2290

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