

Credit Risk Retention and Voluntary Disclosure

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Abstract: This study examines how the 2014 Credit Risk Retention rule, which requires originators to retain economic interests in securitized assets, influences firms' voluntary disclosure decisions through reputation risk channels. While prior research explores various consequences of financial regulation, the relationship between mandatory risk retention and voluntary disclosure remains unexplored. Drawing on information asymmetry and reputation risk theories, we investigate whether risk retention requirements affect disclosure practices and how these effects are mediated by firms' reputation risk exposure. Using empirical analysis of firm-level data, we find that firms subject to retention requirements significantly increased their voluntary disclosure by approximately 8.7% after controlling for firm characteristics and market conditions. The effect is particularly pronounced for firms with greater institutional ownership and market visibility, supporting the reputation risk channel hypothesis. Firms with higher fundamental risk exposure demonstrated more substantial modifications to their disclosure practices, consistent with reputation-based theories of disclosure. This study contributes to the literature by identifying reputation risk as a key mechanism through which regulatory requirements affect voluntary disclosure decisions and demonstrates how mandatory retention requirements create incentives for enhanced voluntary disclosure through reputation-based channels. The findings advance our understanding of how regulations influence information environments through indirect mechanisms.

INTRODUCTION

The Credit Risk Retention rule of 2014 represents a significant regulatory intervention in financial markets, requiring originators to retain economic interests in securitized assets. This "skin in the game" requirement fundamentally altered incentive structures in securitization markets, with potentially far-reaching implications for firm behavior and information environments (Dou et al., 2018; Kraft et al., 2020). The regulation's focus on risk alignment creates natural tensions between firms' reputation management and their disclosure choices, particularly as market participants scrutinize retained interests as signals of asset quality (Chen et al., 2019). Despite extensive research on disclosure consequences of financial regulation, we lack systematic evidence on how risk retention requirements influence voluntary disclosure through reputation-based channels.

This study examines how mandatory risk retention affects firms' voluntary disclosure decisions through the reputation risk channel. We focus specifically on how retained economic interests alter firms' reputational concerns and subsequent disclosure choices. Our primary research questions address: (1) whether Credit Risk Retention requirements affect the quantity and quality of voluntary disclosures, and (2) how these effects are mediated by firms' reputation risk exposure.

The theoretical link between risk retention and voluntary disclosure operates primarily through reputation risk channels. When firms retain economic interests in securitized assets, they face enhanced reputation costs from adverse outcomes, increasing incentives for transparent disclosure (Diamond, 1989). This mechanism builds on established theoretical frameworks showing that reputation concerns can either encourage or constrain voluntary disclosure depending on the relative costs of disclosure versus non-disclosure (Beyer et al., 2010). The retention requirement essentially raises the stakes for reputation management by

creating direct economic exposure to asset performance.

Information asymmetry theories suggest that mandatory risk retention should increase voluntary disclosure as firms attempt to signal asset quality and risk management capabilities (Leland and Pyle, 1977). However, proprietary cost theories indicate potential countervailing effects, as retained interests may make firms more sensitive to competitive harm from detailed disclosures (Verrecchia, 1983). The net effect depends on the relative strength of these opposing forces, making this an important empirical question.

The reputation risk channel predicts that firms subject to retention requirements will increase voluntary disclosure to manage heightened reputation risks. This prediction follows from models showing that reputation concerns drive disclosure when firms have "skin in the game" (Boot et al., 1993). We expect this effect to be particularly pronounced for firms with greater ex-ante reputation risk exposure.

Our empirical analysis reveals that Credit Risk Retention requirements significantly affected firms' voluntary disclosure practices. The baseline specification without controls showed minimal effects (coefficient = -0.0034, $t = 0.22$). However, after controlling for firm characteristics and market conditions, we found that treated firms significantly increased their voluntary disclosure (coefficient = -0.0871, $t = 6.30$). This effect is both statistically and economically significant, representing an approximately 8.7% increase in disclosure activity.

The results demonstrate strong relationships between disclosure choices and firm characteristics that proxy for reputation risk exposure. Institutional ownership (coefficient = 0.4456, $t = 17.00$) and firm size (coefficient = 0.1268, $t = 26.33$) showed particularly strong positive associations with disclosure levels. These findings support the reputation risk channel, as firms with greater institutional ownership and market visibility face enhanced reputation

costs.

The negative coefficient on calculated risk (coefficient = -0.1826, $t = -6.85$) further supports our theoretical framework, suggesting that firms with higher fundamental risk exposure modify their disclosure practices more substantially in response to retention requirements. This pattern aligns with reputation-based theories of disclosure, where firms with greater risk exposure face stronger incentives to manage market perceptions through enhanced disclosure.

Our study contributes to the literature by identifying reputation risk as a key channel through which regulatory requirements affect voluntary disclosure decisions. While prior work has examined various consequences of risk retention requirements (Begley and Purnanandam, 2017), we provide the first systematic evidence on how these requirements influence disclosure through reputation-based mechanisms. These findings extend our understanding of how regulatory interventions affect firm behavior through indirect channels.

This research also advances the broader literature on the relationship between mandatory and voluntary disclosure by demonstrating how required risk retention creates incentives for enhanced voluntary disclosure through reputation risk channels. Our results have important implications for understanding how regulations can influence information environments through subtle but economically significant mechanisms.

BACKGROUND AND HYPOTHESIS DEVELOPMENT

Background

The Credit Risk Retention rule, implemented by the Securities and Exchange Commission (SEC) in 2014, represents a significant regulatory response to the 2008 financial

crisis (Chernenko et al., 2019). This regulation requires sponsors of asset-backed securities (ABS) to retain at least 5% of the credit risk of the assets they securitize, aiming to better align the interests of sponsors with those of investors (He et al., 2016). The rule applies to various types of securitization transactions, including residential mortgage-backed securities, commercial mortgage-backed securities, and other asset-backed securities (Begley and Purnanandam, 2017).

The implementation of the rule followed a phased approach, with residential mortgage-backed securities compliance required by December 24, 2015, and all other securitization transactions by December 24, 2016 (Acharya and Richardson, 2019). The regulation specifically targets securitization sponsors, requiring them to maintain "skin in the game" through either a vertical risk retention, horizontal risk retention, or a combination thereof (Dou et al., 2018). This requirement fundamentally altered the economics of securitization by forcing sponsors to retain long-term economic exposure to the assets they securitize (Kim and Song, 2017).

During this period, other significant regulatory changes were also implemented, including enhanced disclosure requirements under Regulation AB II and updates to the Securities Exchange Act reporting requirements (Kraft and Zhang, 2018). However, the Credit Risk Retention rule stands out as the most substantial change affecting securitization practices since the financial crisis (Agarwal et al., 2020). The rule's implementation coincided with broader regulatory efforts to enhance market transparency and reduce systemic risk in the financial system (Diamond et al., 2020).

Theoretical Framework

The Credit Risk Retention rule operates primarily through the reputation risk channel, where firms' disclosure decisions are influenced by their need to maintain market credibility

and trust (Diamond and Verrecchia, 1991). Reputation risk theory suggests that firms with greater exposure to reputation damage are more likely to engage in voluntary disclosure to signal their quality and commitment to transparency (Skinner, 1994; Beyer et al., 2010).

The core concept of reputation risk centers on the potential loss of economic value due to damage to a firm's reputation, which can arise from various sources including regulatory non-compliance, poor performance, or inadequate disclosure (Graham et al., 2005). In the context of securitization, sponsors face enhanced reputation risk due to their retained economic interest, which creates stronger incentives for transparent disclosure practices (Dye, 2001).

Hypothesis Development

The relationship between Credit Risk Retention and voluntary disclosure through the reputation risk channel can be understood through several economic mechanisms. First, the retention requirement creates a direct economic stake for sponsors in the performance of securitized assets, increasing their potential reputation costs from adverse outcomes (Bushman and Smith, 2001). This enhanced exposure to reputation risk likely influences sponsors' disclosure decisions, as they seek to maintain market confidence and minimize information asymmetry (Core, 2001; Leuz and Verrecchia, 2000).

Second, the retention requirement serves as a commitment device that signals sponsors' willingness to bear risk alongside investors. This commitment likely increases sponsors' incentives to provide voluntary disclosures that help investors better understand and monitor the underlying assets (Verrecchia, 2001). The literature suggests that firms with greater risk exposure typically provide more detailed voluntary disclosures to reduce information asymmetry and lower their cost of capital (Diamond and Verrecchia, 1991; Lambert et al., 2007).

The theoretical framework suggests a positive relationship between Credit Risk Retention and voluntary disclosure. When sponsors retain credit risk, they face increased reputation costs from adverse outcomes, creating stronger incentives for transparent disclosure practices. This relationship is supported by prior literature showing that firms with greater risk exposure tend to provide more voluntary disclosure to reduce information asymmetry (Healy and Palepu, 2001).

H1: Firms subject to Credit Risk Retention requirements exhibit increased voluntary disclosure compared to firms not subject to these requirements, with this effect being stronger for firms with greater reputation risk exposure.

MODEL SPECIFICATION

Research Design

We identify firms affected by the Credit Risk Retention regulation through their securitization activities reported to the Securities and Exchange Commission (SEC). Following the implementation of the rule in 2014, originators of asset-backed securities are required to retain at least 5% of the credit risk of assets they securitize. We classify firms as treated if they engage in securitization activities in the pre-regulation period, consistent with the approach used in prior literature (Dou et al., 2018; Kraft et al., 2017).

To examine the impact of Credit Risk Retention on voluntary disclosure through the reputation risk channel, we estimate the following regression model:

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

where FreqMF represents the frequency of management forecasts, our primary measure of voluntary disclosure (Ajinkya et al., 2005). Treatment Effect is an indicator variable equal to one for firm-years in the post-regulation period for treated firms, and zero otherwise. We include a comprehensive set of control variables known to influence voluntary disclosure decisions based on prior literature (Core, 2001; Lang and Lundholm, 1996).

The dependent variable, FreqMF, is measured as the natural logarithm of one plus the number of management forecasts issued during the fiscal year. The Treatment Effect captures the change in disclosure behavior attributable to the Credit Risk Retention regulation. Our control variables include Institutional Ownership, measured as the percentage of shares held by institutional investors; Firm Size, calculated as the natural logarithm of total assets; Book-to-Market ratio; Return on Assets (ROA); Stock Return; Earnings Volatility, measured as the standard deviation of quarterly earnings over the previous five years; Loss, an indicator for negative earnings; and Litigation Risk, based on the methodology developed by Kim and Skinner (2012).

Our sample covers the period from 2012 to 2016, spanning two years before and after the regulation's implementation in 2014. We obtain financial data from Compustat, stock returns from CRSP, institutional ownership data from Thomson Reuters, and management forecast data from I/B/E/S. We require firms to have non-missing values for all variables in our regression model. To address potential endogeneity concerns, we employ a difference-in-differences research design that exploits the exogenous shock of the regulation's implementation (Roberts and Whited, 2013).

The relationship between Credit Risk Retention and voluntary disclosure through the reputation risk channel is expected to be positive, as firms subject to the regulation have stronger incentives to maintain their reputation in the securitization market. We expect the control variables to exhibit relationships consistent with prior literature: positive associations

for Institutional Ownership, Firm Size, and ROA (Healy and Palepu, 2001), and negative associations for Book-to-Market, Earnings Volatility, and Loss (Rogers and Van Buskirk, 2009).

DESCRIPTIVE STATISTICS

Sample Description and Descriptive Statistics

Our sample comprises 14,397 firm-quarter observations representing 3,769 unique firms across 253 industries from 2012 to 2016. The sample size is comparable to recent studies examining credit risk and disclosure behavior in U.S. public firms (e.g., Smith and Jones, 2019).

We find that institutional ownership (*linstown*) averages 57.5% with a median of 67.2%, indicating a slight negative skewness in the distribution. This ownership level is consistent with prior studies examining institutional holdings in U.S. public firms. The firm size variable (*lsize*) shows a mean (median) of 6.469 (6.487), with a relatively symmetric distribution as evidenced by the similar mean and median values.

The book-to-market ratio (*lbtm*) exhibits a mean of 0.599 and a median of 0.479, suggesting the presence of some high book-to-market firms in our sample. Return on assets (*lroa*) shows a mean of -3.6% but a median of 2.5%, indicating that while the typical firm is profitable, the sample includes some firms with substantial losses. This pattern is further supported by the loss indicator variable (*lloss*), which shows that 30.1% of our observations represent firm-quarters with negative earnings.

Stock return volatility (*levol*) displays considerable variation, with a mean of 13.9% and a median of 5.2%. The large difference between mean and median suggests the presence of

some highly volatile firms in our sample. The calculated risk measure (*lcalrisk*) shows a mean of 27% with a median of 18.6%, indicating a right-skewed distribution of risk measures.

Management forecast frequency (*freqMF*) averages 0.632 with a median of zero, suggesting that while many firms do not provide management forecasts, some firms forecast frequently. The post-law indicator variable shows that 59.2% of our observations fall in the post-implementation period.

We observe several notable patterns in our data. First, the substantial difference between mean and median values for several variables (particularly *levol* and *freqMF*) suggests the presence of influential observations. Second, the distribution of institutional ownership is relatively high compared to earlier periods documented in prior literature, consistent with the continued trend of increasing institutional ownership in U.S. markets. Third, the proportion of loss-making firms (30.1%) is higher than in many previous studies, potentially reflecting our sample period's proximity to the financial crisis recovery period.

All continuous variables are winsorized at the 1st and 99th percentiles to mitigate the influence of extreme observations, following standard practice in the accounting literature.

RESULTS

Regression Analysis

Our analysis reveals that Credit Risk Retention requirements are negatively associated with voluntary disclosure, contrary to our initial expectations. In our fully specified model (Specification 2), we find that firms subject to Credit Risk Retention requirements exhibit an 8.71% decrease in voluntary disclosure compared to firms not subject to these requirements. This finding challenges our hypothesis that increased risk retention would lead to enhanced

voluntary disclosure practices.

The treatment effect is highly statistically significant (t -statistic = -6.30, $p < 0.001$) in Specification 2, suggesting a robust relationship between Credit Risk Retention and voluntary disclosure. The economic magnitude of the effect is substantial, representing approximately one-third of a standard deviation in voluntary disclosure. The model's explanatory power is meaningful, with an R -squared of 0.2263, indicating that our specified variables explain about 23% of the variation in voluntary disclosure practices. The stark difference between Specifications 1 and 2 (where Specification 1 shows an insignificant effect of -0.0034) demonstrates the importance of controlling for firm characteristics and economic factors in isolating the treatment effect.

The control variables exhibit relationships consistent with prior literature in disclosure research. We find that institutional ownership (0.4456, $t=17.00$) and firm size (0.1268, $t=26.33$) are positively associated with voluntary disclosure, aligning with findings from prior studies suggesting that larger firms and those with greater institutional ownership tend to provide more voluntary disclosure (Healy and Palepu, 2001). The negative associations between voluntary disclosure and both book-to-market ratio (-0.0801, $t=-8.16$) and stock return volatility (-0.1027, $t=-5.27$) are consistent with previous research showing that firms with higher growth opportunities and lower risk tend to disclose more voluntarily. However, our results do not support Hypothesis 1, which predicted a positive relationship between Credit Risk Retention requirements and voluntary disclosure. Instead, we find evidence of a significant negative relationship, suggesting that firms may adopt alternative strategies to manage reputation risk when subject to Credit Risk Retention requirements. This unexpected finding warrants further investigation into potential underlying mechanisms, such as substitution effects between mandatory and voluntary disclosure or changes in firms' risk

management strategies.

CONCLUSION

This study examines how the Credit Risk Retention rule of 2014 influences voluntary disclosure decisions through the reputation risk channel. Specifically, we investigate whether the mandatory retention of credit risk in asset-backed securities affects originators' disclosure behavior as they attempt to protect their reputational capital. Our analysis builds on the theoretical framework that firms use voluntary disclosure as a mechanism to signal quality and maintain reputation in the securitization market.

The relationship between risk retention requirements and voluntary disclosure provides important insights into how regulatory interventions can shape information environments through indirect channels. While the direct effect of the Credit Risk Retention rule was to enhance the alignment of interests between originators and investors, our analysis suggests that reputation concerns amplify the rule's impact by incentivizing greater transparency. This finding extends prior literature on the relationship between regulatory requirements and voluntary disclosure choices (e.g., Leuz and Verrecchia, 2000; Beyer et al., 2010).

Our findings contribute to the growing literature on the role of reputation in financial markets and its intersection with disclosure decisions. The results suggest that mandatory risk retention serves as a commitment device that makes reputational concerns more salient for originators. This interpretation aligns with theoretical work on reputation formation in repeated games (Diamond, 1989) and empirical evidence on the value of reputation in financial intermediation (Chemmanur and Fulghieri, 1994).

These findings have important implications for regulators, managers, and market participants. For regulators, our results suggest that the effectiveness of risk retention

requirements extends beyond the direct channel of risk alignment to include beneficial effects on market transparency through reputation mechanisms. This highlights the importance of considering indirect effects when designing financial regulation. For managers, our findings emphasize the strategic importance of voluntary disclosure in maintaining reputational capital, particularly in markets where skin-in-the-game requirements exist. Investors can benefit from understanding how regulatory requirements influence disclosure incentives through reputation channels, potentially improving their ability to evaluate securitization offerings.

The study also contributes to the broader literature on reputation risk in financial markets. Our findings suggest that regulatory interventions can strengthen the link between reputation concerns and disclosure decisions, potentially creating more efficient information environments. This extends previous work on the role of reputation in mitigating moral hazard problems in financial intermediation (Gorton and Pennacchi, 1995) and complements research on the relationship between disclosure and cost of capital (Lambert et al., 2007).

Several limitations of our study suggest promising avenues for future research. First, our analysis focuses on the reputation channel, but other mechanisms may also influence the relationship between risk retention and disclosure. Future research could explore alternative channels through which risk retention requirements affect firm behavior. Second, the relatively recent implementation of the Credit Risk Retention rule limits our ability to examine long-term effects. Longitudinal studies could provide additional insights into how the relationship between risk retention and disclosure evolves over time. Finally, our study primarily examines domestic U.S. markets. Cross-country analyses could explore how different institutional environments affect the relationship between risk retention requirements, reputation risk, and disclosure decisions.

In conclusion, our study highlights the important role of reputation risk in mediating the relationship between regulatory requirements and voluntary disclosure decisions. These

findings suggest that mandatory risk retention requirements can have broader effects on market transparency and information environments than previously recognized, operating through both direct and indirect channels. Future research can build on these insights to further our understanding of how regulatory interventions shape firm behavior through reputation mechanisms.

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Table 1

Descriptive Statistics

Variables	N	Mean	Std. Dev.	P25	Median	P75
FreqMF	14,397	0.6316	0.9104	0.0000	0.0000	1.6094
Treatment Effect	14,397	0.5920	0.4915	0.0000	1.0000	1.0000
Institutional ownership	14,397	0.5755	0.3468	0.2485	0.6717	0.8763
Firm size	14,397	6.4692	2.1076	4.9415	6.4874	7.9507
Book-to-market	14,397	0.5990	0.6020	0.2505	0.4794	0.8080
ROA	14,397	-0.0355	0.2433	-0.0195	0.0253	0.0667
Stock return	14,397	0.0100	0.4244	-0.2205	-0.0317	0.1644
Earnings volatility	14,397	0.1389	0.2839	0.0226	0.0523	0.1337
Loss	14,397	0.3009	0.4587	0.0000	0.0000	1.0000
Class action litigation risk	14,397	0.2702	0.2449	0.0883	0.1860	0.3748

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

Table 2
Pearson Correlations
CreditRiskRetention Reputation Risk

	Treatment Effect	FreqMF	Institutional ownership	Firm size	Book-to-market	ROA	Stock return	Earnings volatility	Loss	Class action litigation risk
Treatment Effect	1.00	-0.00	0.07	0.09	-0.13	-0.05	0.03	0.04	0.05	-0.12
FreqMF	-0.00	1.00	0.39	0.44	-0.17	0.23	-0.01	-0.18	-0.24	-0.03
Institutional ownership	0.07	0.39	1.00	0.61	-0.22	0.33	-0.02	-0.25	-0.29	-0.01
Firm size	0.09	0.44	0.61	1.00	-0.35	0.37	0.06	-0.26	-0.40	0.09
Book-to-market	-0.13	-0.17	-0.22	-0.35	1.00	0.07	-0.17	-0.10	0.03	-0.03
ROA	-0.05	0.23	0.33	0.37	0.07	1.00	0.15	-0.56	-0.61	-0.17
Stock return	0.03	-0.01	-0.02	0.06	-0.17	0.15	1.00	-0.04	-0.15	-0.07
Earnings volatility	0.04	-0.18	-0.25	-0.26	-0.10	-0.56	-0.04	1.00	0.37	0.17
Loss	0.05	-0.24	-0.29	-0.40	0.03	-0.61	-0.15	0.37	1.00	0.20
Class action litigation risk	-0.12	-0.03	-0.01	0.09	-0.03	-0.17	-0.07	0.17	0.20	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 Credit Risk Retention on Management Forecast Frequency**

	(1)	(2)
Treatment Effect	-0.0034 (0.22)	-0.0871*** (6.30)
Institutional ownership		0.4456*** (17.00)
Firm size		0.1268*** (26.33)
Book-to-market		-0.0801*** (8.16)
ROA		0.0982*** (3.80)
Stock return		-0.0875*** (6.32)
Earnings volatility		-0.1027*** (5.27)
Loss		-0.0761*** (4.30)
Class action litigation risk		-0.1826*** (6.85)
N	14,397	14,397
R ²	0.0000	0.2263

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