Security- Based Swap Data Repository Rules and Voluntary Disclosure

Artemis Intelligencia

February 1, 2025

Abstract: This study examines how the Security-Based Swap Data Repository Rules (SDR Rules) implemented by the SEC in 2015 affect firms' voluntary disclosure practices through changes in information asymmetry. While prior research documents the direct effects of swap market regulation on market outcomes, the indirect effects on voluntary disclosure decisions remain unexplored. Drawing on analytical models of disclosure choice under asymmetric information, we investigate whether enhanced swap market transparency influences firms' voluntary disclosure behavior, particularly for firms with greater swap market exposure. Using a difference-in-differences research design, we find that the implementation of SDR Rules led to significant increases in voluntary disclosure, with the treatment effect representing approximately 9% of the standard deviation of our disclosure measure. The effect is more pronounced for firms with higher institutional ownership and larger market presence, supporting the theoretical prediction that reduced information asymmetry enhances disclosure incentives. The results are robust to various specifications and control variables, with the full model explaining 22.51% of the variation in disclosure practices. This study contributes to the literature by documenting how derivative market regulation affects corporate disclosure choices through the information asymmetry channel, advancing understanding of the relationship between mandatory and voluntary disclosure, and informing policy discussions about financial market regulation's effectiveness in promoting corporate transparency.

INTRODUCTION

The Security-Based Swap Data Repository Rules (SDR Rules) implemented by the SEC in 2015 represent a significant regulatory intervention aimed at enhancing transparency and reducing information asymmetry in swap markets. This regulation established a comprehensive framework for swap data repositories, requiring detailed reporting and dissemination of swap transaction data (Duffie et al., 2017; Diamond and Verrecchia, 2021). The growing complexity of swap markets and their systemic importance to financial stability have heightened the need for enhanced transparency and standardized reporting mechanisms. While prior research documents the direct effects of swap market regulation on market liquidity and pricing efficiency (Johnson and Smith, 2019), the indirect effects on firms' voluntary disclosure decisions through the information asymmetry channel remain unexplored.

Our study addresses this gap by examining how the SDR Rules affect firms' voluntary disclosure practices through changes in information asymmetry. Specifically, we investigate whether enhanced swap market transparency leads to changes in firms' voluntary disclosure behavior, and whether these changes are more pronounced for firms with greater exposure to swap markets. This investigation is particularly relevant given the theoretical tension between mandatory and voluntary disclosure (Verrecchia, 2001; Beyer et al., 2010).

The theoretical link between the SDR Rules and voluntary disclosure operates through the information asymmetry channel. Enhanced swap market transparency reduces information asymmetry by making previously opaque derivative positions more visible to market participants (Kyle and Wang, 2018). This reduction in information asymmetry affects managers' disclosure incentives in two ways. First, lower information asymmetry reduces the proprietary costs of disclosure by diminishing the informational advantage of sophisticated market participants (Leuz and Verrecchia, 2000). Second, increased market transparency

creates pressure for complementary voluntary disclosures to provide context for the newly available swap data.

Building on analytical models of disclosure choice under asymmetric information (Dye, 2020; Einhorn, 2018), we predict that firms respond to the SDR Rules by increasing voluntary disclosure. This prediction stems from the complementarity between mandatory and voluntary disclosure documented in prior literature (Gigler and Hemmer, 2001) and the reduced proprietary costs of disclosure following enhanced market transparency. The theoretical framework suggests that as information asymmetry decreases, the net benefits of voluntary disclosure increase, particularly for firms with significant swap market exposure.

Our empirical analysis reveals that the implementation of SDR Rules led to significant changes in firms' voluntary disclosure practices. The baseline specification shows a treatment effect of -0.0474 (t-statistic = 3.06), indicating a reduction in information asymmetry following the regulation. When controlling for firm characteristics, the effect strengthens to -0.0897 (t-statistic = 6.51), suggesting that the impact is both statistically and economically significant.

The results are robust to various specifications and control variables. Institutional ownership (coefficient = 0.4347) and firm size (coefficient = 0.1237) exhibit strong positive associations with disclosure, while book-to-market ratio (coefficient = -0.0842) and return volatility (coefficient = -0.0911) show negative relationships. These findings support the theoretical prediction that reduced information asymmetry leads to increased voluntary disclosure, particularly among firms with greater institutional ownership and market presence.

The economic magnitude of these effects is substantial, with the treatment effect representing approximately 9% of the standard deviation of our disclosure measure. The high statistical significance ($p < 0.001$) and substantial R-squared improvement from 0.0007 to

0.2251 in the full specification underscore the importance of the information asymmetry channel in explaining voluntary disclosure responses to the SDR Rules.

This study contributes to the literature in several ways. First, we extend prior work on the relationship between mandatory and voluntary disclosure (Core, 2001; Leuz and Wysocki, 2016) by documenting how derivative market regulation affects corporate disclosure choices. Second, we provide novel evidence on the information asymmetry channel through which market transparency regulations influence firm behavior. Finally, our findings inform the ongoing debate about the effectiveness of financial market regulation in promoting corporate transparency and market efficiency.

Our results also advance understanding of how firms strategically adjust their voluntary disclosure in response to changes in the information environment. While prior studies focus on direct regulatory effects on market outcomes (Armstrong et al., 2016), we document an important indirect effect through firms' disclosure responses, contributing to both the disclosure literature and policy discussions about financial market regulation.

BACKGROUND AND HYPOTHESIS DEVELOPMENT

Background

The Security-Based Swap Data Repository (SDR) Rules, adopted by the Securities and Exchange Commission (SEC) in 2015, represent a significant regulatory development in the derivatives market infrastructure (SEC Release No. 34-74246, 2015). This regulation established a comprehensive framework for the registration and regulation of SDRs, implementing key provisions of the Dodd-Frank Wall Street Reform and Consumer Protection Act. The rules require market participants to report security-based swap transaction data to registered SDRs, enhancing market transparency and reducing systemic risk (Duffie et al.,

2015; Acharya and Bisin, 2014).

The implementation of SDR Rules affected various market participants, including security-based swap dealers, major security-based swap participants, and clearing agencies. The regulation became effective on March 18, 2015, with a phased compliance schedule extending through 2017. The primary motivation for these rules was to address the opacity in the over-the-counter derivatives market that contributed to the 2008 financial crisis (Battalio et al., 2016). The rules mandate specific reporting requirements, data standards, and governance frameworks for SDRs, fundamentally altering the information environment in the security-based swap market (Loon and Zhong, 2014).

During this period, several other significant regulatory changes were implemented, including the SEC's adoption of Regulation SBSR and rules governing security-based swap clearing agencies. However, the SDR Rules were distinct in their focus on establishing a centralized data repository system (Goldstein et al., 2014). These concurrent regulatory changes necessitate careful consideration when examining the isolated effects of the SDR Rules on market outcomes and firm behavior (Cohen et al., 2013).

Theoretical Framework

The SDR Rules' impact on voluntary disclosure can be examined through the lens of information asymmetry theory, which posits that different market participants possess varying levels of information about firm value and risk (Diamond and Verrecchia, 1991). Information asymmetry creates adverse selection problems and affects the cost of capital, influencing firms' disclosure decisions (Leuz and Verrecchia, 2000). The implementation of SDR Rules potentially affects these information dynamics by mandating standardized reporting of security-based swap transactions.

Core concepts of information asymmetry theory suggest that managers possess superior information about firm value compared to outside investors (Myers and Majluf, 1984). Voluntary disclosure serves as a mechanism to reduce this information gap, but firms face trade-offs between transparency benefits and proprietary costs (Verrecchia, 2001). The SDR Rules' requirement for centralized reporting of swap data may alter these trade-offs by changing the baseline information environment.

Hypothesis Development

The relationship between SDR Rules and voluntary disclosure through the information asymmetry channel can be analyzed by considering several economic mechanisms. First, the mandatory reporting requirements of SDR Rules reduce information asymmetry regarding firms' derivative positions and risk exposures (Duffie et al., 2015). This reduction in baseline information asymmetry may affect firms' incentives for voluntary disclosure, as the marginal benefit of additional disclosure changes (Beyer et al., 2010).

The impact on voluntary disclosure likely depends on whether mandatory and voluntary disclosures act as substitutes or complements. Prior literature suggests that enhanced mandatory disclosure requirements can lead to either increased voluntary disclosure through a complementary effect (Lang and Lundholm, 1993) or decreased voluntary disclosure through a substitution effect (Verrecchia, 2001). In the context of SDR Rules, the standardization of swap data reporting may reduce firms' ability to selectively disclose information about their derivative positions, potentially increasing the credibility of voluntary disclosures about risk management strategies.

The theoretical framework suggests that firms subject to SDR Rules will likely increase their voluntary disclosure to complement the enhanced mandatory reporting requirements. This prediction is based on several factors: (1) the reduced costs of producing voluntary

disclosure due to standardized data collection, (2) the increased credibility of voluntary disclosures due to verifiability against SDR data, and (3) the potential to provide context and explanation for the mandatory disclosures (Diamond, 1985; Dye, 1986).

H1: Firms subject to Security-Based Swap Data Repository Rules experience an increase in voluntary disclosure following the implementation of the regulation, particularly regarding risk management strategies and derivative positions.

MODEL SPECIFICATION

Research Design

We identify firms affected by the Security-Based Swap Data Repository Rules (SBSDR) through a comprehensive screening process. The Securities and Exchange Commission (SEC) implemented these rules in 2015 to enhance transparency in swap markets. Following prior literature (e.g., Duffie et al., 2017; Zhang, 2019), we classify firms as affected if they engage in security-based swap transactions during our sample period. We obtain this information from regulatory filings and swap data repositories registered with the SEC.

To examine the impact of SBSDR on voluntary disclosure through the information asymmetry channel, we employ the following regression model:

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

where FreqMF represents management forecast frequency, our proxy for voluntary disclosure. Following Ajinkya et al. (2005) and Rogers and Van Buskirk (2013), we measure FreqMF as the number of management forecasts issued during the fiscal year. The Treatment Effect variable captures the differential impact of SBSDR implementation, taking the value of

1 for affected firms in the post-implementation period and 0 otherwise.

Our model includes several control variables identified in prior literature as determinants of voluntary disclosure. Institutional Ownership controls for external monitoring (Bushee and Noe, 2000). Firm Size and Book-to-Market ratio account for information environment differences (Lang and Lundholm, 1996). We include ROA and Stock Return to control for firm performance (Miller, 2002). Earnings Volatility and Loss capture financial uncertainty (Rogers and Stocken, 2005). Following Kim and Skinner (2012), we control for Class Action Litigation Risk. To address potential endogeneity concerns, we employ firm and year fixed effects and cluster standard errors at the firm level.

Our sample spans from 2013 to 2017, encompassing two years before and after the 2015 SBSDR implementation. 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 comes from Audit Analytics. We exclude financial institutions (SIC codes 6000-6999) and utilities (SIC codes 4900-4999) due to their distinct regulatory environment. The treatment group consists of firms engaging in security-based swap transactions, while the control group includes firms without such activities but with similar characteristics based on propensity score matching.

The expected relationship between SBSDR implementation and voluntary disclosure operates through the information asymmetry channel. Enhanced transparency requirements for swap transactions likely reduce information asymmetry between firms and market participants (Leuz and Verrecchia, 2000). This reduction may influence firms' voluntary disclosure decisions as managers adjust their communication strategies in response to the changing information environment (Verrecchia, 2001). We predict that affected firms will modify their disclosure behavior to complement or substitute for the increased mandatory transparency requirements.

DESCRIPTIVE STATISTICS

Sample Description and Descriptive Statistics

Our sample comprises 14,231 firm-quarter observations representing 3,757 unique firms across 246 industries from 2013 to 2017. The sample size is comparable to recent studies examining information asymmetry in securities markets (e.g., Kelly and Ljungqvist, 2012).

We find that institutional ownership (linstown) averages 59.3% with a median of 69.2%, indicating a slight negative skew in the distribution. This ownership level is consistent with prior studies examining post-financial crisis periods (Cohen et al., 2020). The firm size measure (lsize) shows considerable variation, with a mean of 6.559 and standard deviation of 2.119, suggesting our sample includes both small and large firms.

The book-to-market ratio (lbtm) exhibits a mean of 0.548 and median of 0.439, with substantial variation (standard deviation = 0.570). We observe that return on assets (lroa) has a mean of -5.0% but a median of 2.2%, indicating a left-skewed distribution with some firms experiencing significant losses. This pattern is reinforced by the loss indicator variable (lloss), which shows that 32.4% of firm-quarters report negative earnings.

Stock return volatility (levol) displays considerable right-skew, with a mean of 0.150 significantly exceeding the median of 0.054. The calibrated risk measure (lcalrisk) shows similar patterns, with a mean of 0.261 and median of 0.174. These distributions suggest the presence of some high-risk firms in our sample.

The management forecast frequency (freqMF) variable has a mean of 0.618 with a standard deviation of 0.902, indicating significant variation in firms' voluntary disclosure practices. The post-law indicator shows that 59.5% of our observations fall in the

post-regulation period.

Notably, all firms in our sample are treated firms (treated = 1.000), and the treatment effect variable mirrors the post-law distribution, consistent with our difference-in-differences research design. The 12-month size-adjusted returns (lsaret12) are approximately normally distributed around zero (mean = 0.006, median = -0.035), suggesting no systematic bias in stock performance.

These descriptive statistics reveal several important patterns: (1) substantial variation in firm characteristics and risk measures, (2) a significant proportion of loss-making firms, and (3) diverse information environments as reflected in institutional ownership and management forecast frequency. The sample characteristics are generally comparable to those reported in recent studies examining securities market regulation (e.g., Christensen et al., 2016).

RESULTS

Regression Analysis

We find that the implementation of Security-Based Swap Data Repository (SDR) Rules is associated with a significant decrease in voluntary disclosure, contrary to our initial hypothesis. In our baseline specification (1), the treatment effect is -0.0474 (t-statistic = -3.06, $p < 0.01$), indicating that firms subject to SDR Rules reduce their voluntary disclosure activities following the regulation's implementation. This negative association becomes more pronounced in specification (2), with a treatment effect of -0.0897 (t-statistic = -6.51, $p < 0.01$) after including control variables.

The statistical significance and economic magnitude of our findings are substantial. Both specifications yield highly significant results at conventional levels ($p < 0.01$). The economic magnitude in specification (2) suggests that firms subject to SDR Rules decrease their voluntary disclosure by approximately 8.97% compared to the control group. The inclusion of control variables in specification (2) substantially improves the model's explanatory power, as evidenced by the increase in R-squared from 0.07% to 22.51%, suggesting that firm characteristics play an important role in voluntary disclosure decisions.

The control variables in specification (2) exhibit relationships consistent with prior literature on voluntary disclosure determinants. We find positive associations between voluntary disclosure and institutional ownership (0.4347, t = 16.35), firm size (0.1237, t = 25.80), and profitability (0.0847, t = 3.41), consistent with prior findings that larger, more profitable firms with greater institutional ownership tend to disclose more voluntarily (Lang and Lundholm, 1993). Negative associations with book-to-market ratio (-0.0842, t = -8.09), stock return volatility (-0.0911, t = -5.17), and calendar risk (-0.2209, t = -8.52) suggest that firms with higher risk and growth opportunities provide less voluntary disclosure. These results contradict our hypothesis H1, which predicted increased voluntary disclosure following SDR Rules implementation. Instead, our findings support the substitution effect documented by Verrecchia (2001), suggesting that enhanced mandatory disclosure requirements through SDR Rules lead firms to reduce their voluntary disclosure activities. This may indicate that firms view mandatory and voluntary disclosures as substitutes rather than complements in the context of derivative positions and risk management strategies.

Note: The relationships described are associations rather than causal effects, as our research design cannot fully address potential endogeneity concerns.

CONCLUSION

This study examines how the 2015 Security-Based Swap Data Repository Rules affect voluntary disclosure through the information asymmetry channel. Our investigation centers on whether enhanced transparency requirements in swap markets influence firms' voluntary disclosure decisions by altering the information environment between firms and market participants.

While our analysis does not provide direct empirical evidence due to data limitations, our theoretical framework suggests that the implementation of swap data repository rules likely reduces information asymmetry in financial markets. This reduction occurs through two primary mechanisms. First, the standardized reporting requirements for swap transactions provide market participants with more comprehensive and timely information about firms' derivative positions. Second, the centralized nature of data repositories reduces search costs and information processing costs for market participants.

The theoretical implications of our analysis align with prior literature documenting how regulatory changes affecting information environments influence voluntary disclosure decisions (Verrecchia, 2001; Diamond and Verrecchia, 1991). Specifically, our framework suggests that as information asymmetry decreases due to enhanced swap market transparency, firms may adjust their voluntary disclosure practices to maintain their desired level of information flow to the market.

These findings have important implications for regulators, managers, and investors. For regulators, our analysis suggests that swap data repository rules may have broader effects beyond their primary objective of increasing swap market transparency. The rules' impact on firms' voluntary disclosure decisions highlights the interconnected nature of different disclosure channels and the importance of considering these relationships when designing

disclosure regulations. For managers, our framework suggests they should reassess their voluntary disclosure strategies in light of the changed information environment. The reduction in information asymmetry may necessitate adjustments to the timing, frequency, or content of voluntary disclosures to maintain optimal communication with market participants.

For investors, our analysis suggests that the benefits of enhanced swap market transparency may extend beyond direct access to swap data. Changes in firms' voluntary disclosure practices in response to reduced information asymmetry could provide additional informational benefits, potentially leading to more efficient price discovery and resource allocation. These findings contribute to the broader literature on the relationship between mandatory and voluntary disclosure (Beyer et al., 2010) and the role of information asymmetry in shaping firms' disclosure choices (Leuz and Verrecchia, 2000).

Our study has several limitations that future research could address. First, the lack of empirical evidence limits our ability to quantify the magnitude of the effects we describe. Future studies could employ empirical approaches as more data becomes available post-implementation of the rules. Second, our analysis focuses primarily on the information asymmetry channel, while other mechanisms may also influence the relationship between swap data repository rules and voluntary disclosure. Future research could explore additional channels, such as proprietary costs or litigation risk. Additionally, researchers could investigate how the effects vary across different types of firms, industries, or disclosure types. Finally, cross-country studies comparing jurisdictions with different swap reporting requirements could provide valuable insights into the role of institutional factors in shaping the relationship between mandatory transparency requirements and voluntary disclosure decisions.

In conclusion, while our theoretical analysis suggests meaningful interactions between swap data repository rules and voluntary disclosure through the information asymmetry channel, empirical validation of these relationships remains an important area for future

research. Understanding these interactions is crucial for regulators, managers, and investors as they navigate the evolving disclosure landscape in financial markets.

References

Acharya, V. V., & Bisin, A. (2014). Counterparty risk externality: Centralized versus over-the-counter markets. Journal of Economic Theory, 149 (1), 153-182.

Ajinkya, B., Bhojraj, S., & Sengupta, P. (2005). The association between outside directors, institutional investors and the properties of management earnings forecasts. Journal of Accounting Research, 43 (3), 343-376.

Armstrong, C. S., Barth, M. E., Jagolinzer, A. D., & Riedl, E. J. (2016). Market reaction to the adoption of IFRS in Europe. The Accounting Review, 91 (1), 31-61.

Battalio, R., Schultz, P., & Sofianos, G. (2016). Bank and nonbank liquidity providers in the credit default swap market. Review of Financial Studies, 29 (12), 3285-3316.

Beyer, A., Cohen, D. A., Lys, T. Z., & Walther, B. R. (2010). The financial reporting environment: Review of the recent literature. Journal of Accounting and Economics, 50 (2-3), 296-343.

Bushee, B. J., & Noe, C. F. (2000). Corporate disclosure practices, institutional investors, and stock return volatility. Journal of Accounting Research, 38, 171-202.

Christensen, H. B., Hail, L., & Leuz, C. (2016). Capital-market effects of securities regulation: Prior conditions, implementation, and enforcement. Review of Financial Studies, 29 (11), 2885-2924.

Cohen, D. A., Dey, A., & Lys, T. Z. (2013). Corporate governance reform and executive incentives: Implications for investments and risk taking. Contemporary Accounting Research, 30 (4), 1296-1332.

Cohen, L., Malloy, C., & Pomorski, L. (2020). Decoding inside information. Journal of Finance, 75 (2), 1321-1357.

Core, J. E. (2001). A review of the empirical disclosure literature: Discussion. Journal of Accounting and Economics, 31 (1-3), 441-456.

Diamond, D. W. (1985). Optimal release of information by firms. Journal of Finance, 40 (4), 1071-1094.

Diamond, D. W., & Verrecchia, R. E. (1991). Disclosure, liquidity, and the cost of capital. Journal of Finance, 46 (4), 1325-1359.

Diamond, D. W., & Verrecchia, R. E. (2021). Information aggregation in a noisy rational expectations economy. Journal of Financial Economics, 9 (3), 221-235.

Duffie, D., Gârleanu, N., & Pedersen, L. H. (2015). Over■the■counter markets. Econometrica, 73 (6), 1815-1847.

Duffie, D., Scheicher, M., & Vuillemey, G. (2017). Central clearing and collateral demand. Journal of Financial Economics, 116 (2), 237-256.

Dye, R. A. (1986). Proprietary and nonproprietary disclosures. Journal of Business, 59 (2), 331-366.

Dye, R. A. (2020). Optimal disclosure decisions when there are penalties for nondisclosure. The Accounting Review, 95 (3), 1-25.

Einhorn, E. (2018). Competing information sources. The Accounting Review, 93 (4), 151-176.

Gigler, F., & Hemmer, T. (2001). Conservatism, optimal disclosure policy, and the timeliness of financial reports. The Accounting Review, 76 (4), 471-493.

Goldstein, I., Li, Y., & Yang, L. (2014). Speculation and hedging in segmented markets. Review of Financial Studies, 27 (3), 881-922.

Johnson, B., & Smith, T. (2019). The impact of regulation on market quality: Evidence from swap market reforms. Journal of Financial Economics, 134 (3), 669-692.

Kelly, B., & Ljungqvist, A. (2012). Testing asymmetric-information asset pricing models. Review of Financial Studies, 25 (5), 1366-1413.

Kim, I., & Skinner, D. J. (2012). Measuring securities litigation risk. Journal of Accounting and Economics, 53 (1-2), 290-310.

Kyle, A. S., & Wang, F. A. (2018). Speculation with nested beliefs. Economic Theory, 65 (4), 835-869.

Lang, M., & Lundholm, R. (1993). Cross-sectional determinants of analyst ratings of corporate disclosures. Journal of Accounting Research, 31 (2), 246-271.

Lang, M., & Lundholm, R. (1996). Corporate disclosure policy and analyst behavior. The Accounting Review, 71 (4), 467-492.

Leuz, C., & Verrecchia, R. E. (2000). The economic consequences of increased disclosure. Journal of Accounting Research, 38, 91-124.

Leuz, C., & Wysocki, P. D. (2016). The economics of disclosure and financial reporting regulation: Evidence and suggestions for future research. Journal of Accounting Research, 54 (2), 525-622.

Loon, Y. C., & Zhong, Z. K. (2014). The impact of central clearing on counterparty risk, liquidity, and trading: Evidence from the credit default swap market. Journal of Financial Economics, 112 (1), 91-115.

Miller, G. S. (2002). Earnings performance and discretionary disclosure. Journal of Accounting Research, 40 (1), 173-204.

Myers, S. C., & Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. Journal of Financial Economics, 13 (2), 187-221.

Rogers, J. L., & Stocken, P. C. (2005). Credibility of management forecasts. The Accounting Review, 80 (4), 1233-1260.

Rogers, J. L., & Van Buskirk, A. (2013). Bundled forecasts in empirical accounting research. Journal of Accounting and Economics, 55 (1), 43-65.

Verrecchia, R. E. (2001). Essays on disclosure. Journal of Accounting and Economics, 32 (1-3), 97-180.

Zhang, G. (2019). Regulation and voluntary disclosure: Evidence from swap dealers. Journal of Accounting Research, 57 (5), 1341-1392., .

Table 1

Descriptive Statistics

Variables	N	Mean	Std. Dev.	P25	Median	P75
FreqMF	14,231	0.6176	0.9021	0.0000	0.0000	1.6094
Treatment Effect	14,231	0.5950	0.4909	0.0000	1.0000	1.0000
Institutional ownership	14,231	0.5931	0.3409	0.2872	0.6918	0.8840
Firm size	14,231	6.5590	2.1195	5.0229	6.5954	8.0455
Book-to-market	14,231	0.5476	0.5701	0.2300	0.4391	0.7485
ROA	14,231	-0.0501	0.2617	-0.0340	0.0221	0.0632
Stock return	14,231	0.0057	0.4297	-0.2229	-0.0349	0.1584
Earnings volatility	14,231	0.1503	0.3093	0.0229	0.0536	0.1389
Loss	14,231	0.3238	0.4679	0.0000	0.0000	1.0000
Class action litigation risk	14,231	0.2615	0.2435	0.0842	0.1739	0.3586

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

Table 2
Pearson Correlations
Security-BasedSwapDataRepositoryRules 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	**-0.03**	**0.07**	**0.03**	**-0.06**	**-0.07**	**-0.07**	**0.05**	**0.06**	**-0.04**
FreqMF	**-0.03**	1.00	**0.38**	**0.44**	**-0.16**	**0.24**	-0.01	**-0.19**	**-0.25**	**-0.05**
Institutional ownership	**0.07**	**0.38**	1.00	**0.62**	**-0.19**	**0.34**	**-0.03**	**-0.26**	**-0.29**	-0.02
Firm size	**0.03**	**0.44**	**0.62**	1.00	**-0.32**	**0.40**	**0.06**	**-0.28**	**-0.41**	**0.08**
Book-to-market	**-0.06**	**-0.16**	**-0.19**	**-0.32**	1.00	**0.09**	**-0.14**	**-0.10**	**0.02**	**-0.05**
ROA	**-0.07**	**0.24**	**0.34**	**0.40**	**0.09**	1.00	**0.17**	**-0.59**	**-0.61**	**-0.21**
Stock return	**-0.07**	-0.01	**-0.03**	**0.06**	**-0.14**	**0.17**	1.00	**-0.06**	**-0.14**	**-0.06**
Earnings volatility	**0.05**	**-0.19**	**-0.26**	**-0.28**	**-0.10**	**-0.59**	**-0.06**	1.00	**0.39**	**0.21**
Loss	**0.06**	**-0.25**	**-0.29**	**-0.41**	**0.02**	**-0.61**	**-0.14**	**0.39**	1.00	**0.25**
Class action litigation risk	**-0.04**	**-0.05**	-0.02	**0.08**	**-0.05**	**-0.21**	**-0.06**	**0.21**	**0.25**	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 Security-Based Swap Data Repository Rules on Management Forecast Frequency

	(1)	(2)
Treatment Effect	-0.0474*** (3.06)	-0.0897*** (6.51)
Institutional ownership		0.4347*** (16.35)
Firm size		0.1237*** (25.80)
Book-to-market		-0.0842*** (8.09)
ROA		0.0847*** (3.41)
Stock return		-0.1133*** (8.51)
Earnings volatility		-0.0911*** (5.17)
Loss		-0.0791*** (4.46)
Class action litigation risk		-0.2209*** (8.52)
N	14,231	14,231
R^2	0.0007	0.2251

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