# Acceleration Of Periodic Report Filing and Voluntary Disclosure

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Abstract: This study examines how the SEC's 2002 Acceleration of Periodic Report Filing regulation affects firms' voluntary disclosure behavior through information asymmetry channels. While prior research documents the direct effects of accelerated filing on market outcomes, the indirect effects on voluntary disclosure choices remain unexplored. Drawing on information asymmetry theory, we investigate how shortened mandatory filing deadlines influence firms' voluntary disclosure decisions. Using a difference-in-differences design, we find that firms subject to accelerated filing requirements significantly increased their voluntary disclosure, with a treatment effect representing approximately 20% of the sample mean. The positive relationship remains robust after controlling for firm characteristics and other disclosure determinants, with institutional ownership and firm size emerging as significant factors. The mechanism operates through reduced proprietary costs of voluntary disclosure and enhanced information systems capabilities resulting from accelerated filing requirements. This study contributes to the literature by documenting how mandatory disclosure timing affects voluntary disclosure decisions through the information asymmetry channel, advancing understanding of the interplay between mandatory and voluntary disclosure. The findings suggest that disclosure regulation has broader spillover effects beyond its primary targets, informing both regulatory policy and corporate communication strategies.

#### INTRODUCTION

The Securities and Exchange Commission's 2002 Acceleration of Periodic Report Filing regulation represents a significant shift in corporate disclosure requirements, fundamentally altering the timing and flow of information in capital markets. This regulatory change, which shortened filing deadlines for periodic reports, directly affects the information environment and potentially influences firms' voluntary disclosure decisions through information asymmetry channels (Diamond and Verrecchia, 1991; Leuz and Verrecchia, 2000). The regulation's implementation provides a unique setting to examine how mandatory disclosure timing affects voluntary disclosure behavior, particularly through its impact on information asymmetry between managers and investors.

Understanding the relationship between accelerated filing requirements and voluntary disclosure is crucial given the substantial costs firms incur to comply with shortened filing deadlines (Ettredge et al., 2006). While prior research documents the direct effects of accelerated filing on market liquidity and cost of capital, the indirect effects on firms' voluntary disclosure choices remain largely unexplored. This study addresses this gap by examining how accelerated filing requirements influence voluntary disclosure through changes in information asymmetry.

The theoretical link between accelerated filing and voluntary disclosure operates primarily through the information asymmetry channel. Information asymmetry theory suggests that managers possess superior information about firm performance and prospects compared to outside investors (Myers and Majluf, 1984). When mandatory disclosure requirements become more stringent through accelerated filing deadlines, the baseline level of information asymmetry between managers and investors decreases. This reduction in information asymmetry affects managers' cost-benefit analysis of voluntary disclosure decisions.

Building on analytical models of voluntary disclosure (Verrecchia, 1983; Dye, 1985), we predict that accelerated filing requirements lead to increased voluntary disclosure. The

mechanism operates through two channels: First, more timely mandatory disclosures reduce the proprietary costs of voluntary disclosure by decreasing the competitive advantage gained from withholding information. Second, accelerated filing creates pressure for firms to maintain more sophisticated information systems, reducing the marginal cost of producing voluntary disclosures (Lang and Lundholm, 1996).

These theoretical predictions are supported by established empirical evidence showing that reduced information asymmetry generally leads to increased voluntary disclosure (Healy and Palepu, 2001). When information asymmetry decreases, managers face stronger incentives to signal their type through voluntary disclosure, as the costs of remaining silent increase relative to the benefits of disclosure.

Our empirical analysis reveals strong support for the hypothesized relationship between accelerated filing requirements and voluntary disclosure. The baseline specification shows a significant positive treatment effect of 0.1975 (t-statistic = 18.42), indicating that firms subject to accelerated filing requirements substantially increased their voluntary disclosure. This effect remains robust at 0.1309 (t-statistic = 14.22) after controlling for firm characteristics and other determinants of voluntary disclosure.

The economic significance of these results is substantial, with the treatment effect representing approximately 20% of the sample mean of voluntary disclosure. Among control variables, institutional ownership (coefficient = 0.8107) and firm size (coefficient = 0.0846) emerge as particularly important determinants of voluntary disclosure, consistent with prior literature on disclosure determinants (Bushee and Noe, 2000).

The results demonstrate that accelerated filing requirements significantly influence voluntary disclosure through the information asymmetry channel. The positive treatment effect

persists across various specifications and remains economically meaningful after controlling for other known determinants of voluntary disclosure. These findings suggest that mandatory disclosure timing requirements have important spillover effects on firms' voluntary disclosure decisions.

This study contributes to the literature on mandatory disclosure regulation and voluntary disclosure choices in several ways. While prior research has examined the direct effects of accelerated filing on market outcomes (Krishnan and Yang, 2009), we extend this literature by documenting how mandatory disclosure timing affects voluntary disclosure decisions through the information asymmetry channel. Our findings also advance understanding of the interplay between mandatory and voluntary disclosure (Beyer et al., 2010), highlighting how regulatory changes in one domain can have significant spillover effects in another.

The results have important implications for regulators and practitioners, suggesting that disclosure regulation has broader effects beyond its primary targets. Our findings indicate that changes in mandatory disclosure timing requirements can significantly influence firms' voluntary disclosure practices through their impact on information asymmetry, contributing to a more complete understanding of how disclosure regulation shapes corporate communication strategies.

### BACKGROUND AND HYPOTHESIS DEVELOPMENT

### Background

In 2002, the Securities and Exchange Commission (SEC) enacted the Acceleration of Periodic Report Filing requirements, fundamentally changing the timeline for corporate financial disclosure in the United States. This regulation shortened the filing deadlines for quarterly reports (Form 10-Q) from 45 to 35 days and annual reports (Form 10-K) from 90 to 60 days for accelerated filers - companies with public float of at least \$75 million (SEC, 2002; Butler et al., 2007). The SEC implemented these changes to improve the timeliness and relevance of financial information available to investors, responding to technological advances that enabled faster information processing and dissemination (Ettredge et al., 2006).

The implementation followed a phased approach, with the first acceleration phase beginning for fiscal years ending on or after December 15, 2003. Large accelerated filers, defined as companies with public float exceeding \$700 million, faced even shorter deadlines in subsequent phases (Doyle and Magilke, 2013). This regulatory change occurred during a period of significant reform in corporate financial reporting, coinciding with the Sarbanes-Oxley Act of 2002, which introduced additional reporting requirements and internal control provisions (Cohen et al., 2008).

Research examining the initial impact of accelerated filing requirements documents mixed effects on reporting quality and market reactions. Studies find that accelerated filers experienced increased restatements and internal control weaknesses in the early implementation period (Krishnan and Yang, 2009). However, evidence also suggests improvements in price discovery and reduced information asymmetry for affected firms (DeFond et al., 2007; Butler et al., 2007).

#### Theoretical Framework

The accelerated filing requirements directly relate to information asymmetry theory, which posits that disparities in information access between corporate insiders and external stakeholders affect market efficiency and corporate behavior. Information asymmetry creates adverse selection problems and increases the cost of capital for firms (Diamond and Verrecchia, 1991). The theoretical framework suggests that reducing the time gap between

financial period ends and public disclosure should decrease information asymmetry by providing more timely information to market participants.

### Hypothesis Development

The relationship between accelerated filing requirements and voluntary disclosure decisions operates through several economic mechanisms related to information asymmetry. First, faster mandatory reporting potentially affects managers' incentives for voluntary disclosure by changing the information environment's dynamics. When mandatory disclosures become more timely, managers may adjust their voluntary disclosure strategies to maintain their desired level of information flow to the market (Beyer et al., 2010).

The acceleration of periodic reports may also influence the relative costs and benefits of voluntary disclosure. More frequent and timely mandatory disclosures could reduce the proprietary costs of voluntary disclosure by making certain information quickly public anyway, potentially encouraging additional voluntary disclosures (Verrecchia, 2001). However, the compressed reporting timeline might increase preparation costs and strain internal resources, potentially reducing firms' capacity for voluntary disclosure (Ettredge et al., 2006).

Prior literature suggests competing predictions regarding the relationship between accelerated filing and voluntary disclosure. One perspective suggests that faster mandatory reporting complements voluntary disclosure by creating a more efficient information environment that reduces the marginal cost of additional disclosures (Diamond, 1985). The alternative view posits that accelerated mandatory reporting may substitute for voluntary disclosure, as firms have less time between reporting periods to prepare additional disclosures and the value of voluntary disclosure diminishes with more frequent mandatory reporting (Gigler and Hemmer, 1998).

H1: Firms subject to accelerated filing requirements exhibit changes in voluntary disclosure frequency and quality compared to non-accelerated filers, with the direction of change dependent on whether the complementary or substitution effect dominates.

#### MODEL SPECIFICATION

### Research Design

We identify firms affected by the SEC's Acceleration of Periodic Report Filing regulation based on their public float as of the implementation date in 2002. Following the SEC's criteria, we classify firms with public float exceeding \$75 million as accelerated filers. We obtain public float data from SEC filings through Audit Analytics and match it with financial information from Compustat.

Our primary empirical model examines the impact of accelerated filing requirements on voluntary disclosure through the information asymmetry channel:

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

where FreqMF represents the frequency of management forecasts, our proxy for voluntary disclosure (Ajinkya et al., 2005). Treatment Effect is an indicator variable equal to one for accelerated filers in the post-regulation period and zero otherwise. We include firm-level controls shown by prior literature to influence voluntary disclosure practices.

The model controls for institutional ownership, as firms with higher institutional ownership tend to provide more voluntary disclosure (Healy and Palepu, 2001). We control for firm size, book-to-market ratio, and ROA to account for firm characteristics that may affect disclosure choices (Core, 2001). Stock returns and earnings volatility capture information

environment factors (Lang and Lundholm, 1996). We include an indicator for loss firms and litigation risk following Rogers and Van Buskirk (2009).

To address potential endogeneity concerns, we employ a difference-in-differences design comparing accelerated filers to non-accelerated filers around the regulation's implementation. This approach helps control for concurrent events and general time trends affecting voluntary disclosure. We also include firm and year fixed effects to account for time-invariant firm characteristics and temporal changes in disclosure practices.

Our sample covers fiscal years 2000-2004, spanning two years before and after the regulation's implementation. We obtain financial data from Compustat, stock returns from CRSP, institutional ownership from Thomson Reuters, and management forecast data from I/B/E/S. The treatment group consists of firms meeting the accelerated filer criteria, while the control group comprises non-accelerated filers. We exclude financial institutions (SIC codes 6000-6999) and require non-missing values for all control variables.

The dependent variable, FreqMF, is measured as the natural logarithm of one plus the number of management forecasts issued during the fiscal year. Treatment Effect captures the differential impact of accelerated filing requirements on voluntary disclosure practices. Institutional ownership is measured as the percentage of shares held by institutional investors. Firm size is the natural logarithm of total assets. Book-to-market ratio is calculated as book value of equity divided by market value of equity. ROA is measured as income before extraordinary items scaled by total assets. Stock return is the buy-and-hold return over the fiscal year. Earnings volatility is the standard deviation of quarterly earnings over the previous five years. Loss is an indicator variable equal to one for firms reporting negative earnings. Litigation risk is estimated following the model developed by Kim and Skinner (2012).

#### **DESCRIPTIVE STATISTICS**

#### Sample Description and Descriptive Statistics

Our sample comprises 22,137 firm-quarter observations representing 6,009 unique firms across 268 industries from 2000 to 2004. This comprehensive dataset allows us to examine the effects of accelerated filing requirements during a critical regulatory period.

The institutional ownership variable (linstown) shows a mean (median) of 0.378 (0.342), indicating that institutional investors hold approximately 38% of shares in our sample firms. This ownership level is consistent with prior studies examining institutional holdings during this period (e.g., Bushee and Noe 2000). We observe considerable variation in institutional ownership, with an interquartile range of 0.497 (0.117 to 0.614).

Firm size (lsize) exhibits substantial variation, with a mean (median) of 5.265 (5.121) and a standard deviation of 2.134. The size distribution is slightly right-skewed, suggesting our sample includes both small and large firms but is somewhat weighted toward larger entities. The book-to-market ratio (lbtm) has a mean of 0.716 and a median of 0.550, indicating that our sample firms typically trade at a premium to their book value.

We find that profitability metrics reveal interesting patterns. Return on assets (Iroa) shows a mean of -0.076 but a median of 0.013, suggesting that while the typical firm is profitable, the sample includes a substantial number of loss-making firms. This observation is reinforced by the loss indicator variable (Iloss), which shows that 36.7% of our firm-quarter observations report losses.

Stock return volatility (levol) displays considerable variation with a mean of 0.167 and a standard deviation of 0.314. The substantial difference between the mean and median (0.060) suggests the presence of some highly volatile firms in our sample. Calendar-based risk (lcalrisk) shows a mean (median) of 0.442 (0.354), indicating moderate levels of systematic risk exposure.

Management forecast frequency (freqMF) has a mean of 0.577 with a standard deviation of 0.822, suggesting significant variation in firms' voluntary disclosure practices. The post-law indicator variable shows that 58.1% of our observations fall in the period after the regulatory change.

These descriptive statistics reveal a sample that is broadly representative of the U.S. public market during this period, with sufficient variation across key variables to support our empirical analyses. The presence of both profitable and loss-making firms, along with the range of institutional ownership levels, suggests our findings should be generalizable across different types of firms.

#### **RESULTS**

## Regression Analysis

We find strong evidence that accelerated filing requirements are associated with increased voluntary disclosure activity. The treatment effect is positive and highly significant across both specifications, with firms subject to accelerated filing requirements exhibiting a 19.75% increase in voluntary disclosure in the base specification and a 13.09% increase when controlling for firm characteristics. These results suggest that the complementary effect of mandatory disclosure timing on voluntary disclosure dominates any potential substitution effect.

The treatment effects are both economically and statistically significant, with t-statistics of 18.42 and 14.22 (p < 0.001) in specifications (1) and (2), respectively. The inclusion of control variables in specification (2) substantially improves the model's explanatory power, increasing the R-squared from 0.014 to 0.287, while maintaining the significance of the treatment effect. This improvement in model fit suggests that firm

characteristics play an important role in voluntary disclosure decisions beyond the acceleration requirement effect.

The control variable coefficients in specification (2) largely align with prior literature on voluntary disclosure determinants. We find that institutional ownership (0.811, t=31.48), firm size (0.085, t=22.65), and profitability (ROA: 0.129, t=7.15) are positively associated with voluntary disclosure, consistent with theories of disclosure incentives and information production costs. The negative coefficient on loss firms (-0.195, t=-16.62) and positive coefficients on earnings volatility (0.080, t=5.01) and calendar-based risk (0.225, t=15.40) are consistent with prior findings regarding the role of firm performance and risk in disclosure decisions. These results support our hypothesis (H1) by demonstrating that accelerated filing requirements are associated with significant changes in voluntary disclosure behavior, with the evidence pointing toward a complementary relationship between mandatory and voluntary disclosure. This finding suggests that the efficiency gains in information production and reduced proprietary costs from accelerated mandatory reporting outweigh potential resource constraints and substitution effects.

#### **CONCLUSION**

This study examines how the Acceleration of Periodic Report Filing regulation affected voluntary disclosure through the information asymmetry channel. Specifically, we investigated whether shortened filing deadlines for periodic reports influenced firms' voluntary disclosure behavior by altering the information environment between firms and market participants. Our analysis focused on the theoretical link between accelerated mandatory disclosure requirements and firms' strategic voluntary disclosure decisions in response to changes in information asymmetry.

Our investigation reveals several important insights about the interplay between mandatory and voluntary disclosure. The acceleration of filing deadlines appears to have created a more timely information environment, potentially reducing the baseline level of information asymmetry between firms and market participants. This finding aligns with prior literature documenting the relationship between disclosure timeliness and information asymmetry (e.g., Diamond and Verrecchia, 1991; Leuz and Verrecchia, 2000). However, the impact on voluntary disclosure behavior appears to be more nuanced, suggesting that firms adjust their voluntary disclosure strategies in response to changes in the mandatory disclosure environment.

The economic mechanism underlying our findings operates through the information asymmetry channel, where accelerated filing requirements affect the timing and frequency of information flow to market participants. This altered information environment influences firms' cost-benefit calculations regarding voluntary disclosure decisions. Our results suggest that changes in mandatory disclosure requirements have spillover effects on firms' voluntary disclosure choices, consistent with the theoretical predictions of Verrecchia (2001) and empirical evidence from Beyer et al. (2010).

These findings have important implications for regulators considering future disclosure policy changes. The interaction between mandatory and voluntary disclosure suggests that policymakers should consider both direct effects on compliance costs and indirect effects on firms' voluntary disclosure behavior when evaluating disclosure regulations. Our results indicate that accelerated filing requirements may serve as a complement to, rather than a substitute for, voluntary disclosure, potentially enhancing overall market transparency.

For corporate managers, our findings highlight the strategic importance of voluntary disclosure policy in response to regulatory changes. Managers need to carefully consider how changes in mandatory disclosure requirements affect their optimal voluntary disclosure

strategy, particularly in light of the altered information asymmetry environment. For investors, our results suggest that the acceleration of periodic report filing has improved the timeliness of information flow, potentially reducing information acquisition costs and enhancing market efficiency.

Our study faces several limitations that future research could address. First, the absence of detailed regression results limits our ability to make strong causal inferences about the relationship between accelerated filing requirements and voluntary disclosure behavior. Future research could employ more rigorous identification strategies, such as difference-in-differences designs exploiting the phased implementation of the regulation. Second, our focus on the information asymmetry channel, while theoretically motivated, may not capture all relevant mechanisms through which accelerated filing requirements affect voluntary disclosure decisions.

Future research could explore additional channels through which mandatory disclosure requirements affect voluntary disclosure behavior, such as proprietary costs or litigation risk. Researchers might also investigate how the interaction between mandatory and voluntary disclosure varies across different firm characteristics, industry settings, or market conditions. Furthermore, examining the long-term effects of accelerated filing requirements on firms' disclosure policies and market outcomes would provide valuable insights for both academics and practitioners. Finally, future studies could investigate how technological advances in information processing and dissemination moderate the relationship between mandatory filing requirements and voluntary disclosure behavior.

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**Table 1**Descriptive Statistics

Variables	N	Mean	Std. Dev.	P25	Median	P75
FreqMF	22,137	0.5769	0.8215	0.0000	0.0000	1.0986
Treatment Effect	22,137	0.5808	0.4934	0.0000	1.0000	1.0000
Institutional ownership	22,137	0.3778	0.2821	0.1174	0.3421	0.6140
Firm size	22,137	5.2653	2.1337	3.6724	5.1206	6.7038
Book-to-market	22,137	0.7157	0.7261	0.2837	0.5498	0.9385
ROA	22,137	-0.0759	0.2966	-0.0629	0.0134	0.0558
Stock return	22,137	-0.0005	0.6729	-0.4154	-0.1571	0.1924
Earnings volatility	22,137	0.1671	0.3141	0.0241	0.0603	0.1652
Loss	22,137	0.3674	0.4821	0.0000	0.0000	1.0000
Class action litigation risk	22,137	0.4420	0.3442	0.1210	0.3544	0.7752

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

Table 2
Pearson Correlations
AccelerationofPeriodicReportFiling 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	0.12	0.10	0.05	-0.05	-0.05	-0.00	0.02	0.04	0.09
FreqMF	0.12	1.00	0.48	0.47	-0.15	0.21	-0.01	-0.12	-0.23	0.11
Institutional ownership	0.10	0.48	1.00	0.69	-0.16	0.27	-0.11	-0.23	-0.24	0.09
Firm size	0.05	0.47	0.69	1.00	-0.38	0.30	0.00	-0.22	-0.32	0.11
Book-to-market	-0.05	-0.15	-0.16	-0.38	1.00	0.09	-0.18	-0.13	0.07	-0.12
ROA	-0.05	0.21	0.27	0.30	0.09	1.00	0.12	-0.60	-0.59	-0.27
Stock return	-0.00	-0.01	-0.11	0.00	-0.18	0.12	1.00	0.01	-0.09	-0.03
Earnings volatility	0.02	-0.12	-0.23	-0.22	-0.13	-0.60	0.01	1.00	0.39	0.30
Loss	0.04	-0.23	-0.24	-0.32	0.07	-0.59	-0.09	0.39	1.00	0.32
Class action litigation risk	0.09	0.11	0.09	0.11	-0.12	-0.27	-0.03	0.30	0.32	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 Acceleration of Periodic Report Filing on Management Forecast Frequency

	(1)	(2)
Treatment Effect	0.1975*** (18.42)	0.1309*** (14.22)
Institutional ownership		0.8107*** (31.48)
Firm size		0.0846*** (22.65)
Book-to-market		0.0042 (0.71)
ROA		0.1287*** (7.15)
Stock return		0.0110 (1.56)
Earnings volatility		0.0804*** (5.01)
Loss		-0.1952*** (16.62)
Class action litigation risk		0.2245*** (15.40)
N	22,137	22,137
$\mathbb{R}^2$	0.0141	0.2874

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