Financial Disclosure under Regulatory Fragmentation

Jonathan Kalodimos[†]
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Abstract: Regulatory fragmentation occurs when multiple regulatory bodies promulgate overlapping rules on the same topic. This overlap can create inconsistencies and compliance costs for the firm but may also enhance oversight through domain-specific scrutiny. Empirically, regulatory fragmentation is associated with increased uncertainty, litigation, and negative language in financial disclosures, particularly within regulation-anchored text. These relationships intensify among firms exposed to a larger number of regulatory agencies, especially enforcement-oriented bodies such as the IRS, DOJ, and FTC. Correspondingly, the association between regulatory fragmentation and readability varies with exposure: filings become longer and less readable for high-exposure firms, while those for low-exposure firms remain shorter and clearer. Furthermore, accounting reporting complexity decreases as regulatory fragmentation rises, consistent with streamlining of quantitative disclosure to enhance readability and reduce the risk of misreporting. Using the unexpected 2016 U.S. presidential election outcome and subsequent deregulatory initiatives as a setting, I find that the association between regulatory fragmentation and regulation-anchored uncertainty strengthened during this period, without a comparable increase in non-regulation-anchored uncertainty. These findings indicate that while regulatory fragmentation may introduce uncertainty and costs to companies, it may also benefit shareholders through shorter and clearer financial disclosures depending on agency oversight.

Keywords: Regulatory fragmentation, government exposure, financial disclosure readability, accounting reporting complexity

† Oregon State University, 2751 SW Jefferson Way Corvallis, OR 97331, USA. Tel: 541-737-6027. E-mail: jonathan.kalodimos@oregonstate.edu. (Corresponding author)

Introduction

The regulatory burden firms face is significant.[1] The substantial burden arises from the sheer quantity of regulations as well as from the complex structure in which multiple regulatory bodies impose overlapping rules. This regulatory overlap creates a fragmented regulatory environment, characterized by agencies with overlapping missions, and results in duplicative regulation that "obscures policy objectives and hinders the development of effective and clear regulation" (Robb, Candy, and Deane, 2022) and generates "inconsistencies in how regulators oversee similar types of institutions" (Government Accountability Office, 2016). This regulatory uncertainty and lack of clarity flow through to companies, with even the most sizable companies having difficulty parsing the regulatory environment. For example, in Apple's 2023 10-K filing, the firm states plainly "[n]ew and changing laws and regulations can also create uncertainty about how such laws and regulations will be interpreted and applied."[2]

The importance of the structural dimension of regulation has only recently come to the forefront of the literature despite ample discussion in industry.[3] This study focuses on how the extent of regulation and its structure shape the information environment that market participants face, with a specific focus on financial disclosure. Following the taxonomy developed by the U.S. Government Accountability Office (GAO) [4], regulatory overlap is a broad coordination problem that can take three forms: fragmentation, overlap, and duplication. Fragmentation arises when multiple agencies oversee different aspects of the same policy domain; overlap occurs when agencies' goals or regulated entities intersect; and duplication occurs when they perform the same activities for the same entities. In this paper, I focus on regulatory fragmentation—what the GAO identifies as a primary form of regulatory overlap—using the firm-level

[1] The National Association of Manufacturers estimates a total economic burden of over $3 trillion in 2023 dollars. (Crain and Crain, 2023)
[2] https://www.sec.gov/ix?doc=/Archives/edgar/data/320193/000032019323000106/aapl-20230930.htm#i1cb1ba018cb1455aa66bd3f9ab0c5b1a_70
[3] See Business Roundtable (2019) for an overview.
[4] The GAO embeds definitions within its annual report on opportunities to reduce regulatory overlap. See page 2 of the 2024 annual report for an example: https://www.gao.gov/assets/gao-24-106915.pdf

measure developed by Kalmenovitz, Lowry, and Volkova (2025). This novel measure quantifies the degree to which multiple agencies regulate the same regulatory topic and maps that agency overlap to individual firms based on the textual similarity between the regulatory topics and the topics discussed in the firm's 10-K filing.

Despite the importance of and significant attention paid to regulatory fragmentation (in the form of GAO efforts, industry discussion, and case studies), the effect of regulatory fragmentation on uncertainty remains conspicuously untested within the literature. To systematically test whether regulatory fragmentation injects uncertainty into the corporate environment broadly, I examine the textual component of financial disclosures. I first establish that firms' financial disclosures express more uncertainty. To distinguish whether these patterns reflect uncertainty about the regulatory environment itself versus a generalized uncertainty from the current operating environment, I develop a regulation-anchoring methodology that isolates text discussing agencies, rulemaking, compliance, and regulatory coordination challenges from discussion related to other generalized issues. If regulatory fragmentation merely proxies for omitted factors such as industry trends or firm complexity, I posit it should appear uniformly throughout financial filings. Instead, I find that regulatory fragmentation's association with uncertainty language is specifically in regulation-anchored content, while non-regulation-anchored content shows diminished or no association. This within-filing contrast, based on textual localization, provides compelling evidence that the documented associations operate through regulatory channels rather than reflecting broader changes in corporate outlook related to the economic environment that may be spurring changes in the regulatory environment.

Building on this foundation, my cross-sectional analysis reveals that the associations with regulatory fragmentation vary more with the breadth of regulatory oversight than with its intensity. The most substantial variation in how regulatory fragmentation is associated with disclosure arises from the number of distinct regulatory agencies a company has material exposure to, rather than the overall level of government involvement. While greater total government exposure does amplify the marginal effect of

regulatory fragmentation, as does scrutiny from enforcement agencies such as the Securities and Exchange Commission (SEC), the Department of Justice (DOJ), the Internal Revenue Service (IRS), and the Federal Trade Commission (FTC), the strong cross-sectional variation introduced based on the count of agencies suggests that the structure of agency oversight is a key antecedent discussion of to regulatory uncertainty in filings. This novel finding underscores the need for a more detailed and comprehensive evaluation of agency structure, beyond the influence of individual agencies, to fully understand the effects of government oversight on financial disclosure and corporate behavior.

While regulatory fragmentation and associated uncertainty present a significant challenge for companies, it also alters the flow of information available to investors. When multiple regulatory bodies promulgate regulation on the same topic, it is empirically associated with higher uncertainty and definitionally implies higher scrutiny. In the face of these two effects, firms must balance competing forces in their disclosure practices. Under an uncertainty compensation motive, firms enhance disclosure clarity and readability to help investors navigate the heightened regulatory uncertainty. Conversely, under a litigation mitigation motive, firms adjust disclosure to reduce legal exposure (Skinner, 1994) from potential enforcement actions by multiple agencies with potentially conflicting interpretations, though this may come at the expense of readability. My analysis reveals these channels operate simultaneously but with different salience depending on firms' exposure to multi-agency oversight. At low levels of government exposure, the uncertainty compensation motive dominates, and firms streamline textual disclosures, improving readability. At high levels of government exposure—where legal risks from overlapping oversight become material—the litigation mitigation motive dominates, and firms expand textual disclosures, sacrificing readability while likely reducing legal risk.

This cross-sectional variation suggests that while firms may bear the burden of regulatory fragmentation, investors could benefit from the endogenous adjustments in financial disclosures that accompany the increased scrutiny. Thus, while uncertainty is a cost to companies, the compensatory adjustments in disclosure associated with regulatory fragmentation may be a benefit to investors. To

evaluate these compensatory adjustments, I examine both textual and numerical dimensions of reporting, focusing on measures of readability and complexity. Using Accounting Reporting Complexity (ARC) (Hoitash and Hoitash, 2018) as a measure of numerical complexity, I find that firms respond uniformly across exposure levels, simplifying financial statement presentation regardless of whether they face oversight from few or many agencies. The uniform reduction in accounting complexity is consistent with both the uncertainty compensation channel and the litigation mitigation channel, with the latter channel activated through reduced risk of misstatement (Hoitash and Hoitash, 2018). In contrast, the association between regulatory fragmentation and textual disclosure shows pronounced heterogeneity: firms with low government exposure streamline narratives and enhance readability, while firms with high exposure expand and qualify their narrative at the expense of readability.[5]

A persistent challenge in the identification of the role of regulation and regulatory structure is the possibility of an omitted factor that results in regulatory adjustments and generalized uncertainty. While the localization of uncertainty language within regulation-anchored text is suggestive, I address this identification concern more directly by examining time-series variation around the unexpected election of President Donald Trump in 2016. Following President Trump's 2017 inauguration, the federal regulatory environment shifted substantially, and it could be characterized by rapid policy changes, frequent reversals, and unexpected public statements on social media that created uncertainty about enforcement priorities. Further, President Trump's administration rapidly began an aggressive deregulatory agenda, with President Trump issuing Executive Order 13771 (Trump, 2017a) to eliminate two existing regulations for every new regulation issued and Executive Order 13781 (Trump, 2017b) shortly thereafter to reorganize the Executive Branch, including eliminating unnecessary or redundant federal agencies, as appropriate. I find that this shift in the process and predictability of regulatory evolution under President

[5] In related contexts, Nagar, Schoenfeld, and Wellman (2019), Jiang, Pittman, and Saffar (2022), and Lu, Parsley, and Xue (2024) provide evidence consistent with the uncertainty channel in the context of economic policy uncertainty, while Dong and Zhang (2019), Naughton et al. (2019), Houston et al. (2019), and Ganguly et al. (2021) provide evidence consistent with the litigation channel.

Trump amplified the relationship between regulatory fragmentation and regulation-anchored uncertainty in financial disclosures, while leaving non-regulation-anchored content largely unchanged. The regime-specific intensification—concentrated in regulatory discussions and most pronounced among firms with broad multi-agency exposure—strengthens the interpretation that disclosure adjustments respond to the regulatory environment rather than simply tracking other time-varying factors.

A growing empirical literature on regulatory fragmentation is emerging across accounting, finance, and economics. Foundational work by Calomiris, Mamaysky, and Yang (2020) convincingly shows that regulatory burden slows sales and asset growth and reduces gross margins. Kalmenovitz (2023) provides a plausible channel for these adverse effects by documenting that both cost of goods sold and overhead spending increase with regulatory intensity. Building on this foundation, Kalmenovitz, Lowry, and Volkova (2025) develop a novel measure of regulatory fragmentation based on textual analysis of the Federal Register and demonstrate that both the overall burden of regulation and its fragmentation adversely affect sales growth and asset growth, while increasing selling, general, and administrative (SG&A) costs and reducing return on assets (ROA). This study extends their findings by examining how regulatory structure is associated with financial disclosure.

This rapidly developing area of research is broad, owing to the wide range of effects of regulatory structure. For example, Xu (2024a) finds that higher fragmentation is associated with fewer internal control weaknesses, while Xu (2024b) finds it associated with more earnings guidance. In follow-on studies, he reports that fragmentation is positively linked to operational efficiency (Xu, 2025a) and a reduction in tax avoidance (Xu, 2025b). Another strand of this literature focuses on the product-market and contracting environment. Hossain, Rahman, and Neupane (2025) show that regulatory fragmentation increases the incidence of product quality failures, while Freeman and Kalodimos (2025) find that firms with significant government procurement exposure respond by adopting more conservative capital structures, with lower leverage and higher cash holdings. Together, the evidence indicates that while overlapping oversight can impose costs, it also drives firms to change governance, disclosure, and

financing choices. This paper contributes to this body of literature by focusing on disclosure characteristics and the relationship between fragmented regulatory oversight and the content and clarity of financial disclosures.

While the deleterious effects of regulatory burden and regulatory fragmentation *on companies* have become well established, this study is the first to demonstrate a beneficial effect of regulatory fragmentation for *market participants* through less complex quantitative disclosures and, for some firms, more readable narratives. The net improvement in disclosure clarity suggests that regulatory overlap may have benefits stemming from additional scrutiny by multiple regulatory bodies. Multiple agencies, each with expertise in their respective domains, reduce oversight blind spots through overlapping regulation. While some overlap may be intentional coordination (such as the Financial Stability Oversight Council or jointly issued guidance), other overlap may be incidental, arising from shared populations of regulated firms. For example, at various points in time banks and bank-affiliated public companies have faced overlapping climate-related regulatory requirements or expectations from the Securities and Exchange Commission and the federal banking agencies—the Office of the Comptroller of the Currency, the Federal Reserve Board, and the Federal Deposit Insurance Corporation.[6] This domain-specific expertise, despite creating coordination challenges for firms, may enhance the overall scrutiny that improves disclosure quality.

These findings contribute to understanding the ever-present tension between constraints imposed on companies and benefits accruing to market participants. The significance of financial disclosure quality to investors is considerable—transparent and accurate disclosures reduce information asymmetry, foster investor confidence, and facilitate efficient capital allocation (Chang et al., 2022; Asthana, Balsam, and Sankaraguruswamy, 2004; Miller, 2010). However, our understanding of how regulatory structure

[6] The legal status of these climate-related initiatives has evolved over time, reflecting judicial challenges, implementation delays, and changes in agency priorities. As a result, the scope of overlap across securities and regulators have been uncertain, illustrating how fragmented regulatory authority and shifts in agency priorities can affect firms' expectations and make it challenging to comply.

shapes disclosure choices remains limited. This study suggests that while regulatory fragmentation imposes costs on firms, these costs may be partially offset by benefits to investors from enhanced information quality. Whether an interior optimum exists that balances firm costs against investor benefits remains an open question, but the findings of this study indicate that the relationship between regulatory structure and welfare is more nuanced than simple cost minimization would suggest.

Several important caveats apply to interpreting these results. Despite employing firm fixed effects, industry-by-year fixed effects, and regulation anchoring to isolate localized regulatory discussion, unobserved time-varying factors may still influence both regulatory structure and disclosure choices. Regulation itself also does not arise in a vacuum: regulatory activity tends to expand in domains where underlying risks to consumers, markets, or public welfare are most salient, meaning that risk and uncertainty can attract regulatory attention. The degree of regulatory fragmentation that develops in those domains additionally reflects longstanding institutional features such as overlapping mandates. These considerations imply that fragmentation may be correlated with underlying industry characteristics that are themselves difficult to observe directly. The analysis should therefore be interpreted as documenting systematic associations consistent with the proposed mechanisms rather than definitive causal effects. Moreover, some aspects of the economic environment may simultaneously influence regulatory structures, corporate outlooks, and disclosure decisions in ways that are difficult to fully disentangle.

Despite the likelihood that such an underlying "something" may be driving both regulatory changes and firms' disclosure policies, the insights of this study remain valuable. When regulators respond to an emerging "something," they retain discretion over how that response is structured—whether new rules are layered on existing oversight, assigned to new or different agencies, or accompanied by the consolidation or retirement of earlier rules. The analysis in this paper speaks directly to these structural design choices by showing that variation in the structure of multi-agency oversight is associated with systematic differences in disclosure characteristics.

While agency missions and jurisdictional boundaries are often slow to change, meaningful restructuring can and does occur. For example, should the Executive Branch pursue consolidation, reassignment, or elimination of regulatory agencies as part of a broader reorganization[7] or shift in political ideologies, the findings here suggest that firms' disclosure practices would adjust in predictable ways, with potentially significant implications for market transparency. More generally, the results highlight that regulators, and the policymakers who shape the structure of regulatory bodies, should be attentive not only to whether risky activities are regulated, but also to how regulatory authority is allocated across agencies. These structural choices create cross-sectional variation in disclosure outcomes, particularly for firms exposed to multiple regulators.

In sum, this study makes three contributions. First, it introduces and empirically verifies the association between regulatory fragmentation and the prevalence of uncertain, litigious, and negative language. Second, it shows that firms' disclosures vary systematically with their degree of regulatory exposure. Third, it identifies dual mechanisms—uncertainty compensation and litigation mitigation—through which regulatory structure shapes disclosure characteristics. Together, these findings deepen our understanding of how regulation influences corporate behavior and inform policy efforts to balance regulatory costs and benefits.

Hypotheses

In this section, I develop specific hypotheses about how the structure of regulation is reflected in firms' financial disclosures. I begin by examining the claim that greater regulatory fragmentation is associated with heightened uncertainty. I test this by analyzing the use of uncertainty-related words in firms' financial disclosures and whether those uncertainty-related words are localized to discussions of regulation. For financial disclosures to change, firms must be aware of shifts in regulatory structure. Managers must also believe that these shifts meaningfully affect their business or the information

[7] For example, Executive Order 13781—Comprehensive Plan for Reorganizing the Executive Branch (Trump, 2017)

environment. This seems reasonable given lobbying efforts by the Business Roundtable and the plainly stated language in Apple's 2023 10-K filing. The more specific question, therefore, is whether this uncertainty is broadly acknowledged in financial disclosures and whether firms are sensitive to variation in regulatory fragmentation.

The structure of regulation affects not only firms' operating performance but also how managers communicate with investors. When multiple regulatory agencies oversee related topics in the same policy domain, the resulting regulatory fragmentation introduces coordination problems distinct from the overall quantity of regulation. Kalmenovitz, Lowry, and Volkova (2025) demonstrate that fragmentation has measurable economic consequences: firms in more fragmented regulatory environments experience lower productivity, slower sales and asset growth, and higher compliance costs. These effects arise because fragmented oversight imposes redundant information requests, potentially conflicting mandates, and inconsistent enforcement criteria that complicate planning and execution.

The Business Roundtable and the GAO reach similar conclusions from a policy perspective, identifying regulatory fragmentation and duplication as a significant cause of regulatory uncertainty. Their reports describe how overlapping jurisdictions lead to repetitive examinations, inconsistent standards, and delays that "dampen activity across the wider U.S. economy" (Business Roundtable, 2019). Further, even when individual rules are clear in isolation, uncertainty can arise from ambiguity over how multiple regulatory regimes interact, particularly for novel products that do not fall cleanly within a single agency's jurisdiction.[8] Managers operating under such conditions face difficulty predicting enforcement outcomes and the evolution of regulatory priorities. These claims motivate my empirical examination of how fragmentation manifests in firms' financial disclosures. I posit that fragmentation-induced uncertainty should translate into more explicit acknowledgment of uncertainty in firms' disclosures.

[8] For example, cell-cultured meat within the emerging field of cellular agriculture spans the regulatory authority of both the USDA and the FDA.

Importantly, the uncertainty induced by regulatory fragmentation is localized: it pertains to agencies, compliance, and enforcement rather than to general business operations. Consequently, the linguistic markers of uncertainty should appear disproportionately in passages discussing regulatory matters, which I refer to as regulation-anchored content.

Hypothesis 1A: Regulatory fragmentation is positively associated with the frequency of uncertainty-related words in regulation-anchored text within disclosures.

The magnitude of this effect should depend on a firm's exposure to government oversight. Two dimensions capture this exposure: breadth, the number of distinct agencies that regulate the firm, and intensity, the depth of overall government involvement. Breadth magnifies interpretation challenges because each additional agency introduces potential inconsistencies and duplicative requirements, while intensity may increase general scrutiny regardless of how many agencies are involved.

Hypothesis 1B: The positive association between regulatory fragmentation and regulation-anchored uncertainty increases with a firm's exposure to government oversight, with the amplification expected to be stronger for breadth than for intensity.

Regulatory fragmentation also heightens perceived legal exposure. Multiple agencies with overlapping oversight on a topic could interpret similar conduct differently or pursue enforcement on separate timelines. As a result, compliance with one regulator's guidance does not necessarily provide protection from another's action, and thus the overall probability of investigation or sanction rises. This specific concern has been acknowledged in practice. For example, in 2018, the U.S. Department of Justice announced the formation of an anti-fraud task force intended to coordinate investigations across agencies—including the Federal Trade Commission, Consumer Financial Protection Bureau, and Securities and Exchange Commission—to deter fraud and avoid "piling on," where multiple agencies probe the same alleged misconduct (Bartz and Johnson, 2018). This particular example illustrates the broader issue: multi-agency oversight can lead to redundant enforcement actions and uncoordinated

penalties, increasing the perceived risk and cost of multi-agency exposure. Firms anticipating such multi-agency enforcement regimes have incentives to disclose more about potential legal contingencies. These linguistic choices serve a dual purpose: they pre-empt surprise should enforcement occur and signal compliance awareness in an environment where interpretations differ across agencies.

In addition to the legal channel, Kalmenovitz, Lowry, and Volkova (2025) identify a direct profitability channel: fragmented oversight increases operating costs and reduces firms' sales and asset growth even after controlling for the quantity of regulation. Thus, fragmented oversight reduces margins and may constrain firms' ability to capitalize on future growth opportunities. Managers in such settings have fundamental incentives to adopt a more cautious or negative tone when discussing performance and risk. Consequently, fragmentation should be associated not only with increased discussion of potential litigation but also with a broader shift toward negative sentiment.

Hypothesis 2: Regulatory fragmentation is positively associated with (i) discussion of litigation and (ii) negative tone in financial disclosures, with effects amplified by firms' exposure to government oversight.

Regulatory fragmentation changes the reporting environment by increasing the number of agencies whose standards a firm must satisfy. When oversight is distributed across several agencies with intersecting jurisdictions, firms must align their compliance, auditing, and disclosure practices to satisfy overlapping regulatory requirements. This added coordination burden raises the marginal cost of complexity within the reporting process. Recent evidence by Xu (2024a) regarding internal control weaknesses suggests that firms respond by simplifying and standardizing their quantitative disclosures. Thus, firms appear to tighten and routinize their reporting systems when oversight becomes more fragmented. Because numerical reporting operates in a rule-bound domain, simplification is likely to occur broadly rather than selectively. In contrast, textual disclosure gives managers discretion to tailor language, including safe-harbor protections for forward-looking statements and the ability to adjust tone to circumstances. Numerical reporting is thus a comparatively constrained channel. I operationalize this

numerical reporting channel using Accounting Reporting Complexity, a validated measure of the numerical intensity and structure of financial statements. ARC has been shown to capture meaningful variation in reporting quality, with lower ARC associated with fewer misstatements, fewer material deficiencies, and a reduced likelihood of receiving SEC comment letters (Hoitash and Hoitash, 2018; Ahn, Hoitash, and Hoitash, 2022).

Hypothesis 3: Regulatory fragmentation is negatively associated with Accounting Reporting Complexity.

Narrative disclosure provides a more flexible margin of adjustment, allowing firms to balance clarity for investors against legal protection in a fragmented regulatory environment. Two countervailing forces govern this trade-off.

Under the uncertainty compensation channel, managers streamline language to help investors interpret firm performance when the regulatory environment becomes more complex or ambiguous. This mechanism builds on a broad body of literature showing that firms adjust disclosure characteristics in response to heightened complexity or uncertainty in ways that support investor understanding (Guay, Samuels, and Taylor, 2016; Glaeser, 2018; Nagar, Schoenfeld, and Wellman, 2019). Simplifying narrative discussion enhances readability and signals transparency. This response is most likely among firms with limited breadth of oversight, where fragmentation heightens informational opacity but litigation risk remains modest.

Under the litigation mitigation channel, firms facing oversight from many distinct agencies confront greater interpretive and sequential enforcement risk. Managers respond by lengthening and qualifying disclosures to enhance defensibility and avoid assertions of undisclosed risks. The resulting reports are longer and less readable, but legally safer (Skinner, 1994; Cazier, McMullin, and Treu, 2021; Humphery-Jenner et al., 2024).

Hypothesis 4: The effect of regulatory fragmentation on textual readability is moderated by a firm's breadth of government oversight. Among firms with low exposure to multiple agencies, fragmentation is associated with improved readability as managers emphasize clarity. Among firms with high exposure, fragmentation is associated with reduced readability as managers expand and qualify text to mitigate legal risk.

Data and Summary Statistics

Measures of Regulatory Structure

Advances in machine learning and the availability of textual regulatory data have enabled the development of new measures of firm-specific regulation. Kalmenovitz, Lowry, and Volkova (2025) create measures of the structure of regulation on two key dimensions. The first is a measure of the dispersion of topics within the regulations that are applicable to the firm. Conceptually, the authors do this by comparing the topics of regulations published in the Federal Register to the contents of a firm's 10-K filing and determining the percentage of the firm's 10-K filing devoted to a particular regulatory topic. Topics are determined by applying Latent Dirichlet Allocation (LDA) analysis to the rules in the text of the regulations published in the Federal Register. Based on the company's textual allocation to these topics, the authors are then able to create a measure of regulatory topic dispersion:

$$TopicDispersion_{f,t} = 1 - \sum_{Topic} P_{f,i,t}^2$$

where $P_{(f,i,t)}$is the percentage of firm f's 10-K filing dedicated to topic i at time t.

The GAO classifies regulatory overlap as a broad coordination problem that can take three forms: fragmentation, overlap, and duplication. Fragmentation occurs when multiple agencies oversee different elements of the same broad policy domain; overlap arises when agencies pursue similar goals and

regulate similar entities; and duplication occurs when agencies perform the same regulatory activities for the same entities.

Within the GAO taxonomy of regulatory overlap, the Kalmenovitz, Lowry, and Volkova (2025) measure corresponds most closely to fragmentation but is closely related to overlap and duplication, since multi-agency regulation of a topic often entails overlapping missions and redundant compliance requirements. Accordingly, I interpret the Kalmenovitz, Lowry, and Volkova (2025) measure as an empirically tractable measure of the multi-agency coordination challenges described in the policy literature, capturing the degree to which a firm operates in a regulatory environment characterized by multi-agency oversight.

To be specific about the construction of the measure, Kalmenovitz, Lowry, and Volkova (2025) estimate firm f's regulatory fragmentation by first creating a measure of a topic's regulatory fragmentation based on the percentage of words on a topic by agency a. Within each topic they calculate regulatory fragmentation for topic i at time t as:

$$AgencyHHI_{i,t} = \sum_{Agency} w_{i,a,t}^2$$

$$RegulatoryFragmentation_{i,t} = 1 - AgencyHHI_{i,t}$$

This measure of regulatory fragmentation is at the topic level, but the topic-level measure must still be mapped to the firm based on the applicability of the topic. They do this by taking a weighted average based on the percentage of firm f's 10-K filing dedicated to topic i at time t:

$$RegulatoryFragmentation_{f,t} = \sum_{i} P_{f,i,t} * RegulatoryFragmentation_{i,t}$$

These measures of the structure of regulation ($TopicDispersion_{f,t}$ and $RegulatoryFragmentation_{f,t}$) provide a framework to analyze how regulatory structure is associated

with the financial reporting environment. Kalmenovitz, Lowry, and Volkova (2025) also provide a measure of the quantity of regulation, which I use to fully characterize the regulatory environment.

The underlying dataset of Kalmenovitz, Lowry, and Volkova (2025) was updated in March 2024 to include a broader cross-section of firms and extend the time period of the original study. For this study, I use the updated dataset for the period 1995 to 2020, which is limited by the availability of the government exposure measure discussed below. Since the relevant measures of regulation quantity and structure are based on an analysis of the U.S. Federal Register and regulations promulgated by U.S. regulatory agencies, I focus on companies with ordinary common equity that are incorporated in the United States (CRSP share codes 10 and 11) and have financial information available in Compustat. Finally, to facilitate comparison across variables, I normalize these measures of regulatory structure to have a mean of zero and a standard deviation of one.

Measures of Exposure to the U.S. Government

High government exposure can result from a company's interactions with numerous, influential, or deeply involved agencies. To measure a company's exposure to the government, I focus on its material exposure to agencies. To determine material exposure to an agency, I rely on companies' adherence to material disclosure rules in their 10-K filings. Armstrong, Glaeser, and Hoopes (2025) develop a measure of total government exposure using a text-based search technique that identifies named government entities in a company's 10-K filing and then measures the fraction of a company's 10-K filing dedicated to discussing that agency. The total government exposure measure is defined as the total fraction of a company's 10-K filing allocated to discussion of government entities. To capture the various forms of government exposure outlined above, I use the following measures: (1) the number of unique agencies mentioned in the company's 10-K filing; (2) the total government exposure as defined by Armstrong, Glaeser, and Hoopes (2025); and (3) the fraction of the company's 10-K filing allocated to discussion related to the Securities and Exchange Commission, Internal Revenue Service, Federal Trade Commission, or Department of Justice.

Textual Measures and Regulation Anchoring

To measure uncertainty, litigation, and negative sentiment, I use the dictionaries developed by Loughran and McDonald (2011), which are calibrated to financial disclosures. The dependent variables in the textual analyses are the logarithm of the count of words belonging to each dictionary category.

A central feature of the textual analysis is distinguishing regulation-anchored from non-regulation-anchored content within financial filings. I develop a regulation anchoring methodology that isolates sentences discussing regulatory matters from general business content. The anchoring lexicon comprises three components: core regulatory terminology (e.g., regulation, rule, compliance, examination), regulatory process and change (e.g., proposed rule, amendment, effective date), and overlap language (e.g., duplicative, conflicting, inter-agency). For each filing, I extract regulation-anchored sentences using pattern matching with a context window of one sentence before and one sentence after to more completely capture regulatory discussions. I then compute word counts separately for regulation-anchored and non-anchored text. Non-regulation-anchored content is the complement: all words of a particular classification in the filing minus those in regulation-anchored sentences.

This partitioning allows me to examine whether associations between regulatory fragmentation and textual outcomes appear throughout the filing or concentrate in discussions of regulatory matters specifically. Details of the lexicon construction and extraction algorithm are provided in the Technical Appendix.

Other Measures

The complexity of financial reporting is measured using the Accounting Reporting Complexity measures developed by Hoitash and Hoitash (2018), and downloaded from the data website of Udi Hoitash and Rani Hoitash. The measures of accounting complexity are constructed for both 10-K and 10-Q filings and include metrics for the overall numerical intensity of the filing, the numerical intensity of the financial statement tables (referred to as the “face”), and the numerical complexity of the notes to a

financial statement. Analysis incorporating these Accounting Reporting Complexity measures starts in 2012, when XBRL reporting became mandatory for all filers.

To measure the readability of financial filings based on the text of the filings, I use the logarithm of the file size (in megabytes) of the financial statement, the Fog Index, or the Fog Index constituent components. The Fog Index and filing size in megabytes have been widely used in the accounting and finance literature as a validated measure of disclosure readability and investor processing costs (Li, 2008; Loughran and McDonald, 2014), while constituent components of the Fog Index capture variation in overall narrative volume (Lang and Stice-Lawrence, 2015).

Summary Statistics

Table 1 presents summary statistics describing the sample firms and their regulatory structures. Panel A presents the variables Regulation Quantity, Topic Dispersion, and Regulatory Fragmentation in their original units. For subsequent analysis, these variables are standardized to have a mean of zero and a standard deviation of one to aid interpretation.

[Insert Table 1 approximately here]

Panel B of Table 1 presents the correlation among key measures of regulatory structure. Univariate correlations reveal that the various dimensions of regulatory structure are not always intuitively aligned. While it is expected that the number of agencies to which a firm has material exposure is positively correlated with the overall quantity of regulation or total government exposure, it is less obvious why total government exposure is negatively correlated with regulatory fragmentation. To further illustrate the distinct dimensions captured by these measures, Figure 1 compares total government exposure for firms with exposure to three agencies versus seven agencies.

[Insert Figure 1 approximately here]

As shown in Figure 1, firms exposed to more agencies tend to have higher total government exposure on average, but the distributions overlap meaningfully. Some firms facing the same number of agencies differ substantially in their total exposure, and firms with different agency counts can exhibit similar exposure levels. This overlap underscores that the dimensions of government exposure capture distinct aspects of the regulatory environment.

Empirical Analysis

Analysis of Disclosure Uncertainty-related Words

My first hypothesis focuses on the degree of uncertainty conveyed by management in financial disclosures. I regress the log count of uncertainty-related words in firm financial statements on measures of regulatory structure, firm characteristics, and firm fixed effects. A key innovation of this analysis is distinguishing between uncertainty-related words that appear in proximity to regulation-anchored terms and those that do not. This distinction allows me to assess whether the association between regulatory fragmentation and uncertainty is concentrated in regulatory discussions specifically, or whether it is more broadly reflected throughout the filing.

Table 2 presents the results of this analysis. Panel A examines the full sample across three categories of uncertainty-related words: all uncertainty-related words (columns 1–2), regulation-anchored uncertainty-related words (columns 3–4), and non-regulation-anchored uncertainty-related words (columns 5–6). The unit of observation is the individual filing, with separate analyses for 10-K and 10-Q filings.

[Insert Table 2 approximately here]

Panel A exploits within-firm time-series variation to examine where uncertainty-related words appear within firm disclosures as regulatory structure varies. For total uncertainty-related words (columns 1–2), the estimated association between regulatory fragmentation and uncertainty-related language is

modest and not statistically significant, with mixed evidence for the association with the quantity of regulation. In contrast, when isolating regulation-anchored uncertainty-related words (columns 3–4), I find a positive and statistically significant association with regulatory fragmentation, topic dispersion, and regulation quantity. For 10-K filings, a one standard deviation increase in regulatory fragmentation is associated with a 2.0% increase in regulation-anchored uncertainty-related words, with a slightly larger association for 10-Q filings.

By comparison, the estimated associations between regulatory fragmentation and non-regulation-anchored uncertainty-related words (columns 5–6) are weaker and not precisely estimated in this within-firm time-series setting. Coefficients on regulatory fragmentation and topic dispersion are small and statistically insignificant for both filing types, and the evidence is mixed for regulation quantity. One interpretation of this pattern is that changes in regulatory structure primarily affect how uncertainty is articulated in regulatory discussions, while associations outside those contexts are more difficult to detect in time-series variation that reflects broader changes in firms' operating environments over time. Accordingly, these results motivate a more focused examination of regulation-anchored uncertainty language, and a shift toward specifications that exploit cross-sectional variation while conditioning on higher-order fixed effects to absorb firms' operating environments over time.

Given that the clearest associations appear in regulation-anchored uncertainty language, Panel B focuses exclusively on this component and assesses whether the results are driven by firm-level operational changes that could be correlated with both regulatory structure and disclosure practices. Panel B compares the full-sample estimates from Panel A to subsamples of firms with limited asset growth (columns 3–4) and firms that do not change the number of reported segments year-over-year (columns 5–6). These restrictions are designed to mitigate concerns that the results reflect uncertainty arising from general business expansion, restructuring, or changes in organizational complexity.

Across both subsamples, the estimated coefficients on regulatory fragmentation, topic dispersion, and regulation quantity remain positive, statistically significant, and similar in magnitude to the full-

sample estimates. This stability indicates that the association between regulatory fragmentation and regulation-anchored uncertainty language is not driven by major changes in firm scale or structure. Instead, the results are consistent with an interpretation in which regulatory fragmentation is associated with how managers discuss regulatory matters in financial filings, rather than being a mechanical byproduct of firm growth or reorganization.

Exposure to the Government

While government exposure may amplify the effects of regulatory fragmentation, which dimension of exposure matters most remains an open question. My second hypothesis posits that the marginal effect of regulatory fragmentation on uncertainty language is increasing in material exposure to government. Table 3 presents the results from panel regressions that test Hypothesis 1B. Specifically, I interact regulatory fragmentation with indicator variables for quintiles of government exposure as defined in the column labels. The specification includes both firm fixed effects and industry-by-year fixed effects, isolating within-firm variation in regulatory fragmentation while controlling for common industry-level shocks. Panel A presents results for 10-K filings, while Panel B examines 10-Q filings. I focus on two primary measures of government exposure: the number of agencies to which a firm has material exposure (column 1) and total government exposure as measured by the fraction of the 10-K filing text devoted to government entities (column 2). Additionally, columns 3–6 present results for four specific agencies that may have more substantial effects (SEC, IRS, DOJ, and FTC).

[Insert Table 3 approximately here]

The results reveal substantial cross-sectional heterogeneity. For 10-K filings, the baseline coefficient on regulatory fragmentation in column 1 is negative and statistically significant, indicating that among firms with the lowest exposure to government agencies, regulatory fragmentation is associated with lower uncertainty-related word usage once high-dimensional fixed effects remove variation from time-invariant firm factors and industry-by-year factors. Furthermore, interaction coefficients increase

monotonically across quintiles, from 0.037 for the second quintile to 0.072 for the fifth quintile; all are statistically significant. The aggregated marginal effect for firms in the highest quintile of agency exposure is 0.037 and is statistically significant ($p < 0.01$) as determined by an F-test and represents an economically meaningful association for firms subject to oversight by multiple agencies.[9] To put this in context, the average firm with the lowest exposure to agencies is associated with about 25 fewer uncertainty-related words in its 10-K filing, while the average firm with the most exposure to agencies is associated with about 64 more uncertainty-related words for a one standard deviation increase in regulatory fragmentation.[10] This monotonic pattern suggests regulatory fragmentation at the regulatory topic level is not uniformly impactful for firms, but rather the structure of the agencies providing oversight within the fragmented regulatory environment is a key driver of uncertainty discussion.

While the design of this analysis cannot show causal effects, if we take these results at face value, they suggest that regulatory fragmentation is more strongly associated with uncertainty relative to the overall quantity of regulation for firms with the most material agency oversight. For firms with the most exposure to agencies, the economic magnitude of regulatory fragmentation corresponds to approximately 3.7% higher usage of uncertainty-related words, while the economic magnitude of regulation quantity is associated with approximately 1.5%. Furthermore, changing the quantity of regulation applicable to a firm will almost certainly affect the fragmentation of the regulatory environment the firm faces. This suggests a complex interplay among the structure of government agencies, the scope of topics on which agencies promulgate regulation, and the quantity of that regulation. Thus, if researchers examine the impact of a particular regulation or consider the regulatory burden by examining only the quantity, they

[9] Calculated as the baseline coefficient -0.035 plus the interaction coefficient 0.072. Additionally, as confirmed with an F-test the aggregate coefficient of regulatory fragmentation and uncertainty-related word use is statistically significant at conventional levels ($p < 0.05$) for quintiles 3, 4, and 5 of agency exposure.
[10] The average firm in the lowest exposure quintile uses about 670 uncertainty-related words while the highest exposure quintile uses about 1,822 uncertainty-related words. The full sample mean is 1,065 uncertainty-related words.

may overstate or understate the effects of that regulation by not considering the evolution of the regulatory environment's structure and the oversight provided by distinct agencies.

While column 1 of Table 3 shows a clear monotonic relationship between regulatory fragmentation and the number of government agencies, the pattern for total government exposure (column 2) is less clean. Interaction terms are generally positive but do not exhibit the same monotonic pattern and have mixed statistical significance. Total government exposure aggregates all government-related discussions without distinguishing the composition of agencies that drives it, making it a noisier indicator of the regulatory pressures firms experience under fragmented oversight.

Columns 3–6 examine exposure to specific agencies with regulatory significance: the SEC, IRS, DOJ, and FTC. All four show positive and statistically significant interactions at the highest exposure levels, indicating that material involvement with these enforcement agencies amplifies the marginal effect of regulatory fragmentation. Notably, while SEC exposure shows a clear monotonic pattern across quintiles, the overall association across Quintiles 2–5 is not statistically significant as confirmed by an F-test. In contrast, exposure to the IRS, DOJ, and FTC shows statistically significant aggregate associations. Interestingly, the total number of agencies to which a firm is exposed generates greater cross-sectional variation than exposure to any single agency, suggesting that breadth of oversight rather than intensity of involvement with specific regulators drives the amplification effects.

Panel B presents analogous results for 10-Q filings. The overall pattern is similar, with agency count interactions showing monotonic increases from Quintile 2 (0.016) through Quintile 5 (0.045), though magnitudes are uniformly smaller than in 10-K filings. This attenuation is consistent with quarterly reports being more concise in their discussion of broader regulatory matters.

Figure 2 provides a visual representation of these interaction effects by plotting the total marginal effect of regulatory fragmentation across quintiles of government exposure. This figure illustrates the monotonic relationship between agency count and the marginal effect of regulatory fragmentation for

both 10-K filings (Subfigure A) and 10-Q filings (Subfigure B), which is in stark contrast with total government exposure, which has a substantially flatter profile.

[Insert Figure 2 approximately here]

These findings support Hypothesis 1B that government exposure amplifies the relationship between regulatory fragmentation and uncertainty but also reveal important nuances regarding which dimension matters most. The breadth of regulatory oversight as measured by the number of distinct agencies is the primary source of cross-sectional variation, as opposed to total government exposure or exposure to key enforcement agencies. This finding aligns with the interpretation that regulatory fragmentation affects disclosure through compliance challenges, inconsistent guidance, and overlapping examinations that arise when multiple regulatory agencies are involved. Total government exposure, which could reflect deep involvement with a single agency *or* shallow involvement with many, is a less robust predictor.

To ensure this heterogeneity reflects regulatory-specific associations rather than general changes in business language, I next examine these patterns separately for regulation-anchored and non-regulation-anchored components of uncertainty-related language.

Regulation-Anchored versus Non-Regulation-Anchored Uncertainty-related Words

The cross-sectional heterogeneity documented in Table 3 demonstrates that the association between regulatory fragmentation and uncertainty-related words varies systematically with firms' exposure to government oversight. However, this heterogeneity could reflect factors unrelated to regulatory fragmentation, such as firms with greater government exposure experiencing different macroeconomic conditions. To address this concern, I re-estimate the exposure interactions separately for regulation-anchored and non-regulation-anchored uncertainty-related words. If the heterogeneity reflects regulatory uncertainty, it should be concentrated in regulation-anchored content.

Table 4 presents these results, with Figure 3 providing a visualization of the magnitude of the associations. The specifications in Table 4 mirror Table 3, including firm fixed effects and industry-by-year fixed effects, but the dependent variable is now split into regulation-anchored uncertainty-related words (columns 1–3) and non-regulation-anchored uncertainty-related words (columns 4–6). Panel A examines 10-K filings, while Panel B presents results for 10-Q filings.

[Insert Table 4 approximately here]

[Insert Figure 3 approximately here]

Table 4 demonstrates a notable contrast between regulation- and non-regulation-anchored uncertainty-related word usage. While both measures of uncertainty are positive and increase with exposure to the number of agencies, total government exposure, or exposure to the SEC, the magnitude of the association is two to three times larger for uncertainty-related words anchored in a regulatory context. For example, among firms with exposure to the greatest number of agencies, a one standard deviation increase in regulatory fragmentation is associated with 4.9% higher use of regulation-anchored uncertainty-related words and 2.1% higher use of non-regulation-anchored uncertainty-related words.[11] Interestingly, there is limited cross-sectional variation arising from total government exposure for regulation-anchored uncertainty-related word usage and no cross-sectional variation in non-regulation-anchored uncertainty-related word usage. This is the case for both 10-K filings and 10-Q filings.

Table 4 reveals an important distinction between the association of regulation quantity and regulatory fragmentation with uncertainty-related words. *Regulation quantity* shows little association with regulation-anchored uncertainty-related word usage but is significantly associated with non-anchored uncertainty-related words. Conversely, *regulatory fragmentation* shows strong associations with regulation-anchored uncertainty-related word usage but much weaker associations with non-anchored uncertainty-related words. This pattern suggests that regulatory fragmentation induces uncertainty most

[11] Both estimates are statistically different from zero ($p < 0.01$) as confirmed by an F-test.

strongly about the application and interpretation of regulations themselves, while regulatory quantity creates uncertainty about the operating environment that the rules seek to regulate. This is consistent with the interpretation that regulatory fragmentation complicates managers' ability to assess compliance and manifests in how they discuss regulatory obligations; in contrast, the regulation quantity affects resource allocation and operational costs throughout the organization, generating uncertainty that pervades general business discussions. The differential associations underscore that quantity and fragmentation operate through distinct channels.

In sum, the results are consistent with regulatory fragmentation being more closely associated with uncertainty about the regulatory environment than general business uncertainty. Fragmentation shows stronger associations with regulation-anchored uncertainty-related word usage, while its relation with non-anchored uncertainty-related words is notably weaker. Furthermore, the quantity of regulation aligns more closely with broader operating uncertainty-related word usage. Taken together, these patterns suggest that regulatory fragmentation may shape how firms discuss regulatory obligations specifically, rather than simply tracking shifts in the broader economic environment, and regulatory fragmentation and quantity of regulation are two distinct (though intertwined) channels that affect the uncertainty conveyed in financial filings.

Analysis of Litigation- and Negativity-related Words

I posit that heightened regulatory complexity should elevate concerns about compliance failures, enforcement actions, and legal exposure, prompting more extensive discussion of litigation risks. Similarly, the negative performance effects documented by Kalmenovitz, Lowry, and Volkova (2025), such as reduced ROA and higher SG&A, suggest managers facing a fragmented regulatory environment may adopt a more negative tone given a more onerous compliance burden and potentially more challenging operating environment.

Table 5 examines these predictions by analyzing litigation-related words (columns 1, 3, and 5) and negativity-related words (columns 2, 4, and 6) as the dependent variables. The specification includes firm fixed effects and industry-by-year fixed effects, with regulatory fragmentation interacted with quintiles of agency exposure. For each dependent variable, I present results for all words (columns 1–2), regulation-anchored words (columns 3–4), and non-regulation-anchored words (columns 5–6). Panel A presents results for 10-K filings, while Panel B presents results for 10-Q filings.

[Insert Table 5 approximately here]

The use of litigation-related words (column 1) shows strong patterns, with the magnitude of the regulatory fragmentation-litigation relationship increasing monotonically. An F-test confirms that the total marginal effect is both positive and statistically significant ($p < 0.01$) for quintiles 2–5 of agency exposure. A one standard deviation increase in regulatory fragmentation is associated with approximately an 11.7% increase in the use of litigation-related words for firms in the top quintile, corresponding to about 403 additional litigation-related words. Similarly, the use of negativity-related words (column 2) mirrors that of litigation-related words and shows a strong monotonic pattern: a one standard deviation increase in regulatory fragmentation is associated with a 9.3% increase in the use of negativity-related words for firms in the top quintile, corresponding to about 407 additional negativity-related words.[12]

Interestingly, and in contrast to the use of uncertainty-related words, the distribution of the use of litigation- or negativity-related words is more widespread throughout the disclosure. In the case of uncertainty-related words, the association with regulatory fragmentation is anchored in discussion of regulation; in the case of litigation- and negativity-related words, the strong association is prevalent in both regulation-anchored and non-regulation-anchored contexts and is of similar magnitude. Figure 4 illustrates the substantial similarity between word usage in the context of regulation versus other contexts. This is consistent with both a negative and potentially litigious outlook directly stemming from regulatory

[12] The average firm in the top quintile uses 3,444 litigation-related words and 4,375 negativity-related words in its 10-K filing.

structure, and the impact on the operating environment such as increased costs or adjustments in the production process.[13]

[Insert Figure 4 approximately here]

The heightened use of litigation- and negativity-related words in both regulatory and non-regulatory contexts, combined with the concentration of uncertainty-related words in the regulatory context, suggests these results may contain a forward-looking risk element and/or a disclosure of the realization of risks. Thus, it is unclear whether the heightened discussion of litigation and negativity is forward-looking (risk) or outcome disclosure (realizations of risk). To distinguish between forward-looking risk and realized outcomes, I examine whether associations are concentrated in proximity to modal language. Modal language is hedged phrasing using words like "may," "could," and "might" that signals uncertainty about future contingencies. [14] If regulatory fragmentation primarily affects prospective risk and outlook, I expect stronger effects for modal-anchored content.

Table 6 separates modal-anchored from non-modal-anchored litigation- and negativity-related words. The specification mirrors previous tests and maintains firm fixed effects and industry-by-year fixed effects, with regulatory fragmentation interacted with quintiles of agency exposure. Columns 1–2 examine modal-anchored litigation and negativity, while columns 3–4 analyze non-modal-anchored variants, with Panel A isolating 10-K filings, and Panel B isolating 10-Q filings. For ease of interpretation, Figure 5 presents a visual representation of Table 6.

[Insert Table 6 approximately here]

[13] For example, manufacturers of controlled pharmaceuticals are subject to FDA drug-quality and production standards as well as DEA quotas governing the annual production of scheduled substances. These parallel requirements illustrate how firms may face overlapping regulatory obligations that affect compliance decisions and operational planning, and ultimately result in drug shortages. https://www.gao.gov/assets/gao-15-202.pdf

[14] I construct modal-anchored measures by identifying sentences that contain any modal term as defined within the Loughran and McDonald dictionary and then counting category words (e.g., litigious, negative) only within those sentences. Because modal anchoring is applied strictly at the sentence level, these measures capture language used in discussing potential or contingent future states rather than realized or descriptive text.

[Insert Figure 5 approximately here]

The results of Table 6 suggest that the relationships between regulatory fragmentation and both litigation- and negativity-related words are pronounced in both prospective (modal-anchored) and outcome (non-modal-anchored) contexts. Moreover, the magnitude of the estimates for each quintile of exposure to agencies is greater for contexts anchored by modal words, for both litigation-related words and negativity-related words for 10-K filings. Interestingly, the 10-Q filing results show stronger associations in non-modal-anchored contexts, possibly due to the nature of 10-Q filings as contained, interim updates. These results taken together suggest that the widespread relationship between disclosure and regulatory fragmentation does not operate strictly through a prospective channel or realized outcomes channel, but rather is more broad-based. This is similar to the inferences from Table 5 in which the robust association is prevalent in both regulatory and non-regulatory contexts.

The 2017 Regulatory Regime Shift

The within-firm and cross-sectional analyses above establish robust associations between regulatory fragmentation and disclosure characteristics. However, these patterns could reflect omitted factors correlated with both regulatory structure and disclosure practices that fixed effects do not fully absorb. To examine whether the fragmentation-uncertainty relationship is sensitive to changes in the regulatory environment, I exploit the substantial shift in federal regulatory posture following the 2017 inauguration of President Trump.

The Trump administration represented a marked departure from prior regulatory approaches. Beyond pursuing deregulation in specific domains, the administration was characterized by rapid policy shifts, frequent reversals of regulatory positions, high turnover in agency leadership, and unexpected public statements that often created uncertainty about enforcement priorities. Additionally, Executive Order 13781 directed agencies to develop a plan to improve efficiency, effectiveness, and accountability including, as appropriate, to eliminate or reorganize unnecessary or redundant agencies (Trump, 2017b).

This explicit regime shift plausibly altered how regulatory fragmentation is associated with firms' disclosure of regulatory uncertainty. When regulatory direction becomes less predictable, firms facing oversight from multiple agencies may confront amplified uncertainty as each agency's shifting priorities create the potential for conflicting guidance and inconsistent enforcement. Additionally, uncertainty in agency priorities may result in a broadening of regulatory uncertainty disclosed across firms if regulatory fragmentation is salient only when agency attention—or the possibility of agency attention—is material.

Table 7 examines how the relationship between regulatory fragmentation and uncertainty disclosure changed under this new policy regime. The specification includes firm fixed effects and interacts regulatory fragmentation with an indicator for filings after January 20, 2017. Panel A presents pre- and post-inauguration comparisons for regulation-anchored and non-regulation-anchored uncertainty-related word usage, while Panel B introduces triple interactions with quintiles of agency exposure to examine whether the regime shift affected high-exposure firms differently. Figure 6 provides a visual representation of these patterns.

[Insert Table 7 approximately here]

[Insert Figure 6 approximately here]

Panel A reveals notable intensification in the fragmentation-uncertainty relationship for regulation-anchored content. For regulation-anchored uncertainty (column 1), the baseline estimate is 0.023, and the Trump administration interaction is 0.029, effectively doubling the magnitude of the association. In contrast, non-regulation-anchored uncertainty-related words show no change associated with the Trump administration. Figure 6 illustrates this stark contrast. The substantial increase in regulation-anchored uncertainty-related words without a corresponding increase in non-anchored uncertainty-related words suggests a directional link from regulatory process changes to firms' disclosures rather than the reverse. The marked increase post-inauguration is not consistent with the government reacting to market events by

changing regulation in ways that increase fragmentation. Under this alternative, I would expect more uncertainty-related words throughout the filing.

Panel B examines whether post-2017 changes varied with agency exposure. For regulation-anchored uncertainty, there is a marked increase in the use of uncertainty-related words for all but the highest quintile of agency exposure. The most substantial change occurs for firms in the lowest quintile of exposure to agencies. This widespread broadening of the association between regulatory fragmentation and uncertainty suggests that agency attention—or the probability of such attention—is necessary for regulatory fragmentation to meaningfully affect disclosure characteristics. In this sense, regulatory fragmentation meaningfully influences disclosure characteristics only when the likelihood of oversight is sufficiently salient, echoing the logic of Becker (1968) that behavior adjusts to the expected rather than the realized consequences of monitoring. Notably, the marked change in uncertainty-related words is absent in non-regulatory contexts and shows limited systematic variation across exposure levels, further supporting that the Trump administration policy regime changes operated through uncertainty about regulatory structure.

Important caveats apply to this analysis. The Trump administration implemented tax cuts and pursued broad-based deregulatory initiatives (Executive Order 13771) during this period. Anticipation of these shifts in regulation quantity could have influenced disclosure independently of regulatory structure, though the localization to regulation-anchored content and estimation conditional on the regulation quantity provide reassurance that regulatory mechanisms are at play. Therefore, a cautious interpretation is that these results demonstrate that the fragmentation-uncertainty relationship is sensitive to the regulatory process and suggest the existence of a causal channel.

The time-series variation adds an important dimension to the cross-sectional and within-firm findings. The fragmentation-uncertainty relationship shifted meaningfully around a major regulatory transition, and this shift operated primarily through regulation-anchored content. This association is policy-relevant because regulators shape both the quantity and structure of regulation through specific

legislation, and the U.S. government has purview over the creation or elimination of agencies and the scope of those agencies. The results of Table 7, illustrated in Figure 6, suggest that policymakers who shape regulatory bodies should recognize how structural choices create cross-sectional responses based on regulatory fragmentation and companies' exposure to multiple regulatory bodies.

Analysis of Accounting Reporting Complexity

I now examine whether regulatory fragmentation is associated with the complexity of numerical reporting using the Accounting Reporting Complexity measures developed by Hoitash and Hoitash (2018). Unlike textual tone, numerical reporting is more tightly constrained by standardized accounting principles, SEC regulations, audit requirements, and personal attestations by executives. The established interpretation of ARC is that lower ARC indicates higher financial reporting quality with a reduced likelihood of misstatements and a lower probability of receiving SEC comment letters (Hoitash and Hoitash, 2018; Ahn, Hoitash, and Hoitash, 2022). Thus, if regulatory fragmentation is associated with higher scrutiny and correspondingly higher quality financial statements, I would expect lower ARC.

Table 8 presents results from panel regressions of ARC measures on regulatory structure variables, firm characteristics, and firm and industry-by-year fixed effects. Columns 1–2 examine overall ARC for 10-K and 10-Q filings, while columns 3–6 decompose complexity into the face financial statements (core tables) and notes.

[Insert Table 8 approximately here]

Regulatory fragmentation is consistently negatively associated with ARC across all specifications, which, under the established interpretation of ARC, suggests improved financial reporting quality. The reduction in numerical complexity supports both the uncertainty compensation channel (firms simplify numerical presentation to help investors when facing heightened regulatory uncertainty) and the litigation mitigation channel (increased scrutiny from multiple agencies encourages standardized reporting that reduces misstatement and misinterpretation risk).

The response in note-based complexity is slightly larger in magnitude than that of face financial statements (10-K: -0.056 versus -0.049) but is not likely to be meaningfully different given the estimated standard errors. This suggests that while managerial discretion is likely higher in the notes section of disclosures, the association between regulatory fragmentation and accounting complexity is broad-based. Further supporting the notion that regulatory structure is associated with disclosure policy, the coefficients on topic dispersion are consistently negative, indicating that firms facing diverse regulatory topics also simplify numerical reporting. In contrast, coefficients on regulation quantity show mixed signs and are generally small, underscoring that regulatory structure matters independently of overall quantity.

Table 9 examines whether the association between regulatory fragmentation and ARC varies with firms' government exposure by interacting regulatory fragmentation with quintiles of agency count. The specification continues to include firm and industry-by-year fixed effects.

[Insert Table 9 approximately here]

The cross-sectional variation by government exposure is notably modest. In Table 9, the baseline coefficient for overall ARC in 10-K filings is -0.052 ($p < 0.01$), and interaction terms are mostly small and statistically insignificant except at the highest quintile (Quintile 5: -0.039; $p < 0.10$).

The relative uniformity of the ARC association across exposure levels stands in contrast to the textual uncertainty results, where agency count introduces strong cross-sectional variation. This pattern suggests that textual disclosure provides greater scope for firms to tailor how they communicate the uncertainty of their specific regulatory environment, whereas numerical reporting affords less latitude for such differentiated adjustments. These results support my third hypothesis that regulatory fragmentation is negatively associated with Accounting Reporting Complexity. The consistent negative coefficients indicate that firms simplify numerical reporting when regulatory fragmentation increases, and the broad-based nature of this simplification suggests a uniform response across exposure levels, including among firms with modest government oversight.

Analysis of Textual Readability

The theoretical prediction for textual readability is ambiguous: an uncertainty compensation motive suggests firms should streamline narratives to help investors navigate heightened uncertainty, whereas a litigation mitigation motive may prompt expanded disclosures and qualified language that reduces readability.

Table 10 examines multiple dimensions of textual readability for 10-K filings. The dependent variables include the Fog Index, log number of complex words, log word count, log sentence count, and average words per sentence. These measures jointly capture linguistic and structural complexity in financial reporting, allowing a more complete assessment of disclosure clarity and volume. The specification includes firm and industry-by-year fixed effects, with regulatory fragmentation interacted with quintiles of agency exposure to examine how the readability response varies with oversight breadth.

[Insert Table 10 approximately here]

Baseline coefficients are negative across all readability measures, indicating that firms with limited multi-agency oversight produce more readable filings. The interaction terms are positive and increase monotonically across exposure quintiles, implying that greater agency scrutiny (and possible litigation risk) offsets this baseline effect. For firms in the fourth and fifth quintiles, the net effect of fragmentation on the Fog Index becomes positive (indicating reduced readability); however, the joint F-test for the aggregate Fog Index association is not statistically significant at conventional levels.[15] In contrast, the constituent components of readability (columns 2–5 of Table 10) display the same monotonic pattern, and their joint F-tests of the fourth and fifth quintile indicate statistically significant positive associations in all specifications ($p < 0.05$). To put this in context, the average firm with the lowest exposure to agencies is associated with about 3,967 (5.0%) fewer words in its 10-K filing, while the average firm with the most exposure to agencies is associated with about 24,126 (10.3%) more words

[15] The combined effect was not statistically significant for Quintile 4 ($p = 0.28$) or Quintile 5 ($p = 0.27$).

for a one standard deviation increase in regulatory fragmentation.[16] Overall, high-exposure firms expand disclosure length and complexity (e.g., using more words, sentences, and complex terms), consistent with litigation mitigation through fuller disclosure outweighing the benefits of streamlined disclosure for uncertainty compensation.

Table 11 provides complementary analysis using file size as a summary measure of the extent of disclosure. The econometric setup is similar to Table 10, with regulatory fragmentation interacted with agency exposure quintiles. Columns 1–3 present results for the full sample, a limited growth subsample, and a constant segments subsample to reduce the possibility that firm changes are driving both changes in disclosure size and regulatory fragmentation.

[Insert Table 11 approximately here]

The inferences based on log file size closely mirror those from the detailed readability measures. The baseline coefficient estimates indicate smaller filings among firms with minimal multi-agency oversight, while the interaction terms rise monotonically across exposure quintiles, implying that disclosure length expands with agency exposure. At lower and moderate exposure levels, the aggregate effect remains negative, but it diminishes and becomes statistically indistinguishable from zero at higher exposure levels.[17] Inferences are robust across both the limited-growth and constant-segments subsamples.

Taken together, the results of Tables 10 and 11 suggest that for firms with exposure to few government agencies, the uncertainty compensation channel becomes increasingly meaningful, and firms streamline narratives. In contrast, at high exposure, litigation mitigation becomes increasingly meaningful, and firms expand disclosures, even at the expense of readability. This nonlinear pattern

[16] The average firm in the lowest exposure quintile uses about 79,334 words in its 10-K filing while the highest exposure quintile uses about 234,237 words. The full sample mean is 131,545 words.
[17] The combined effect was statistically significant for Quintiles 2 and 3 (Q2: $p = 0.08$; Q3: $p = 0.04$) but not statistically distinguishable from zero for Quintiles 4 and 5 (Q4: $p = 0.11$; Q5: $p = 0.83$).

contrasts with the uniform numerical simplification documented for ARC. Textual disclosure allows firms to tailor their response: streamlining when clarity benefits dominate and expanding disclosure to reduce legal risk that may arise from multi-agency scrutiny in a fragmented regulatory environment.

Conclusion

This study examines how regulatory fragmentation is reflected in firms' financial disclosures. Combining firm-level measures of agency exposure with textual analysis of 10-K and 10-Q filings, the evidence indicates systematic differences in disclosure associated with the degree of regulatory fragmentation. Firms with exposure to a larger number of regulatory agencies—including enforcement-oriented bodies such as the IRS, DOJ, and FTC—use more language related to uncertainty, litigation, and negative outcomes, with these effects concentrated in the regulation-anchored portions of their filings. As agency exposure increases, filings become, on average, longer and less readable, whereas those from firms with limited exposure remain shorter and clearer. This pattern is consistent with firms balancing two disclosure considerations: an uncertainty compensation motive, in which greater clarity helps investors interpret complex regulatory environments, and a litigation mitigation motive, in which additional detail and qualified language reduce legal exposure. Complementary evidence from numerical reporting indicates that accounting complexity decreases as regulatory fragmentation increases, consistent with improved financial reporting quality and reduced misstatement risk (Hoitash and Hoitash, 2018; Xu 2024a). This result suggests that while textual disclosure expands under fragmented regulation, firms concurrently simplify quantitative presentation in ways associated with more reliable financial reporting. Taken together, the textual and numerical results imply that regulatory fragmentation is associated with more expansive narrative disclosure but reduced complexity in financial statement presentation, suggesting that firms adjust multiple disclosure channels to manage both informational and legal dimensions of regulatory fragmentation.

Using the 2016 U.S. presidential election outcome and the subsequent deregulatory initiatives of the Trump administration, I examine whether the relationship between regulatory fragmentation and firms' disclosure of uncertainty changed as the federal oversight environment shifted. The results show a stronger association between fragmentation and regulation-anchored uncertainty-related words during this period, with no comparable change in non-regulatory text.

Overall, the results support a more nuanced view of regulatory fragmentation. Rather than constituting a uniformly costly distortion, overlapping oversight induces heterogeneous adjustments that can enhance the information environment when the likelihood of agency scrutiny is meaningful. This nuanced view of regulatory fragmentation aligns with legal scholarship advocating for interagency coordination (Marisam, 2013; Shah, 2015). From a policy perspective, these findings underscore the importance of coordinating specialized regulators to minimize duplicative rules while preserving the informational benefits of diverse oversight.

Declaration of generative AI and AI-assisted technologies in the writing process.

Statement: In preparing this work, the author used OpenAI's ChatGPT, Anthropic's Claude, and Google's Gemini AI tools to assist with proofreading and identifying areas for improved readability. These tools also served as a substitute for some tasks typically performed by a professional copyeditor (e.g., tone, intent, paragraph structure, etc.). The author subsequently reviewed and edited the content and takes full responsibility for the published article.

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Appendix A

Table A1. Variable description

Variable	Definitions
Regulatory Variables	
Regulation Quantity	See Section 3 for construction, normalized to be mean zero, standard deviation one. (*Source*: Kalmenovitz, Lowry, and Volkova, 2025)
Topic Dispersion	See Section 3 for construction, normalized to be mean zero, standard deviation one. (*Source*: Kalmenovitz, Lowry, and Volkova, 2025)
Regulatory Fragmentation	See Section 3 for construction, normalized to be mean zero, standard deviation one. (*Source*: Kalmenovitz, Lowry, and Volkova, 2025)
Total Gov't Exposure	Fraction of sentences in 10-K that relate to a government agency. (*Source*: Armstrong, Glaeser, and Hoopes, 2025)
N. Agencies	Number of unique government agencies referenced in 10-K. (*Source*: Armstrong, Glaeser, and Hoopes, 2025)
"XYZ" Agency Exposure	Number of mentions of a particular government "XYZ" agency referenced in 10-K filing. (*Source*: Armstrong, Glaeser, and Hoopes, 2025)
Financial Reporting Variables	
Uncertainty Words	*Source*: SEC Analytics downloaded from WRDS
Weak Modal Words	*Source*: SEC Analytics downloaded from WRDS
Litigious Words	*Source*: SEC Analytics downloaded from WRDS
Negative Words	*Source*: SEC Analytics downloaded from WRDS
File Size (MB)	*Source*: SEC Analytics downloaded from WRDS
Word Count	*Source*: SEC Analytics downloaded from WRDS
Complex Words	*Source*: SEC Analytics downloaded from WRDS
Sentence Count	*Source*: SEC Analytics downloaded from WRDS
Words/Sentence	Word Count / Sentence Count (*Source:* SEC Analytics downloaded from WRDS)
Fog Index	*Source*: SEC Analytics downloaded from WRDS
Accounting Reporting Complexity	*Source*: Data website of Hoitash and Hoitash (2018) https://www.xbrlresearch.com/firm-complexity/
Regulation-Anchored	*Source:* See Technical Appendix
Modal-Anchored	*Source:* See Footnote 13
Company Variables	* indicates winsorized by year at the [1, 99]; ** indicates high only
Log Sales	Logarithm of Sales (*Source*: Compustat)
*Tobin's Q**	(Long Term Debt Total + Debt in Current Liabilities + Common Shares Outstanding*Price Close End of Fiscal Year)/ Total Assets (*Source:* Compustat)
*EBITDA / Assets**	EBITDA / Total Assets (*Source*: Compustat)
*Book Leverage***	(Long-Term Debt + Debt in Current Liability) / Total Assets (*Source*: Compustat)

*Asset Tangibility***	Net Property, Plant, and Equipment/Total Assets (*Source*: Compustat)
N. Segments	Number of Segments in Compustat Segments database (*Source*: Compustat)

Technical Appendix: Regulation-Anchored Text Extraction

Identification Strategy

The primary empirical challenge in this study is distinguishing whether regulatory fragmentation affects disclosure through genuine regulatory channels versus spuriously correlating with omitted firm characteristics or macroeconomic shocks. The regulation-anchoring methodology isolates textual elements that are more likely to be related to regulatory structure and less likely to be proxies for industry trends, growth trajectories, or general economic uncertainty. The central idea of this identification method is if fragmentation creates interpretive challenges specific to navigating overlapping regulatory requirements, its effects should concentrate in text discussing agencies, rules, compliance obligations, and other regulatory text. Differential patterns between regulation-anchored and non-anchored content within the same filing, and therefore the same economic conditions, provide evidence that observed associations operate through regulatory rather than spurious channels.

Lexicon Construction

I construct a regulation-anchoring lexicon targeting three conceptual domains:

Core Regulatory Discussion: Terms identifying the regulatory apparatus itself (regulation, rule, compliance, guidance, examination, licensing, recordkeeping, consent orders). These capture discussions of regulatory requirements and government oversight.

Regulatory Process and Change: Language describing rule promulgation and modification (proposed rule, amendment, effective date, comment period, stay, rollback). These identify discussions of regulatory uncertainty stemming from ongoing or anticipated changes in requirements.

Regulatory Overlap: Terms explicitly referencing coordination challenges across regulatory bodies (overlapping, duplicative, conflicting, fragmentation, inter-agency, dual-registration, federal-and-state, harmonization). These directly capture the multi-principal oversight that characterizes regulatory fragmentation.

The lexicon deliberately excludes specific statutory citations, regulation numbers, and docket references. This design ensures identification of regulatory discussions rather than boilerplate citations of specific rules, which may appear mechanically without conveying interpretive complexity.

Extraction Methods

The extraction operates at sentence-level granularity using parallel text streams. Each filing generates:

1. A matching stream: Aggressively normalized (uppercase, standardized punctuation, collapsed whitespace) for robust pattern detection across formatting variations
2. An output stream: Preserving original case and paragraph structure for subsequent linguistic analysis

Both streams undergo identical sentence splitting (rule-based division on sentence-terminal punctuation followed by whitespace), which produces matching boundaries in over 99.9% of filings.

For each sentence *s* in the matching stream, I evaluate:

- Regex pattern match against the three-component lexicon, OR
- Token-level match against a supplementary anchor word set

Matching sentences are designated "seeds." To capture multi-sentence regulatory discussions—where substantive content may span elaborations, examples, or qualifying clauses—I expand each seed to include the previous sentence or the sentence immediately following the seed. This windowing balances precision (focusing on regulatory content) with recall (capturing complete regulatory discussions).

Consecutive flagged sentences are clustered into contiguous blocks and written as atomic units, maintaining natural discourse structure while preserving sentence boundaries for subsequent word-level analysis.

Non-Regulation-Anchored Content and Within-Document Comparison

Non-regulation-anchored content is defined as all words related to a particular measure (e.g., uncertainty, litigation, negativity) in the filing minus regulation-anchored words.

The identification logic is straightforward. Regulatory fragmentation measures overlap in rule-promulgating authorities. If this structural feature affects disclosure primarily through regulatory channels, effects should be more focused in regulation-anchored text. If instead fragmentation proxies for broader firm characteristics (e.g., operational complexity, industry composition, growth options), effects should appear similarly in both anchored and non-anchored content. Differential magnitudes therefore test whether the mechanism operates through regulatory interpretation versus other correlated factors.

This within-document comparison complements firm and industry-by-year fixed effects. Even after absorbing firm-specific means and industry-year shocks, the anchored/non-anchored differential remains identified from variation in where within the document fragmentation's effects manifest. This provides a quasi-experimental contrast unavailable in standard panel specifications.

Specific Regex

REGEX_REGULATION_CORE = r"""

\bregula(?:tion|tory|tions)\b

| \brule(?:[-\s]?making|s)?\b

| \bcompli(?:ance|ant|ancy|ing)\b | \bnon[-\s]?compliance\b

| \bguidance\b | \binterpretive\s+guidance\b

| \bregulatory\s+standard(?:s)?\b

| \bexemptive\s+relief\b | \bwaiver(?:s)?\b | \bvariance(?:s)?\b

| \blicens(?:e|ing|es)\b | \bauthori[zs]ation(?:s)?\b

| \brecord[-\s]?keeping\b | \breporting\s+requirement(?:s)?\b

```
| \bconsent\s+(?:order|decree)(?:s)?\b
| \bexamination(?:s)?\b
"""

REGEX_REGULATORY_CHANGE = r"""
\b(?:final|interim\s+final)\s+rule(?:s)?\b
| \b(?:notice|advanced?\s+notice)\s+of\s+proposed\s+rulemaking\b
| \b(?:NPRM|ANPRM|IFR)\b
| \bpropos(?:e|ed|ing)\b | \badopt(?:ed|ion)?\b
| \bamend(?:ed|ment|ments|ing)?\b | \brevis(?:e|ed|ion|ions)\b
| \brescind(?:ed|ing)?\b | \bwithdr(?:aw|awn|awal)\b
| \brepeal(?:ed|ing)?\b | \broll[-\s]?back(?:s|ed|ing)?\b
| \beffective\s+date\b | \bcompliance\s+date\b | \btransition\s+period\b
| \bphase[-\s]?(?:in|out)\b | \bsunset(?:ted|ting)?\b | \bgrandfather(?:ed|ing)?\b
| \bcomment\s+period(?:\s+(?:closes?|extended))?\b
| \bstay(?:ed)?\b | \benjoin(?:ed|ing)?\b | \bvacat(?:e|ed|ur)\b | \bremand(?:ed)?(?:\s+without\s+vacatur)?\b
| \bdelay(?:ed|s|ing)?\b | \bpostpon(?:e|ed|ement)\b | \bextend(?:ed|s|ing|ion)\b
"""

REGEX_OVERLAP_FRAGMENTATION = r"""
\boverlap(?:ping)?\b
| \bduplicat(?:e|ive)\b | \bredundan(?:t|cy)\b
| \bconflict(?:ing|s)?\b | \binconsisten(?:t|cies)\b | \bincompatib(?:le|ility)\b
| \bfragmentation\b | \bpatchwork\b | \bpiecemeal\b
| \bnon[-\s]?uniform(?:ity)?\b | \bdivergent\b | \bdisparate\b
| \bpre[-\s]?empt(?:ion|ive|ed|s)?\b
| \b(shared|concurrent)\s+(?:jurisdiction|oversight)\b
```

```
| \b(?:dual|multi)[-\s]?(?:registration|regulated|regulation|oversight|jurisdiction(?:al)?)\b
| \binter[-\s]?agency\b | \bjoint(?:ly)?\s+(?:issued|rule|guidance|enforcement|investigation)\b
| \b(?:federal\s+and\s+state|state\s+and\s+local|federal,\s*state,\s*and\s*local)\b
| \bstate[-\s]?by[-\s]?state\b | \bvar(?:y|ies)\s+by\s+state\b
| \bharmoniz(?:e|ation)\b | \balign(?:ment|ed|ing)?\b
| \bstandardiz(?:e|ation)\b | \breconcil(?:e|iation)\b
"""
```

Figures:

Figure 1: Overlap in Total Government Exposure.
This figure shows overlapping histograms comparing the distribution of total government exposure (as defined in Armstrong, Glaeser, and Hoopes, 2025) for two groups of firms: those with material exposure to exactly three government agencies (light bars) versus those with material exposure to seven or more agencies (dark bars). Total government exposure measures the intensity of government involvement in a firm's operations, aggregating across all agencies. The distribution of total government exposure is censored at ten percent for figure clarity.

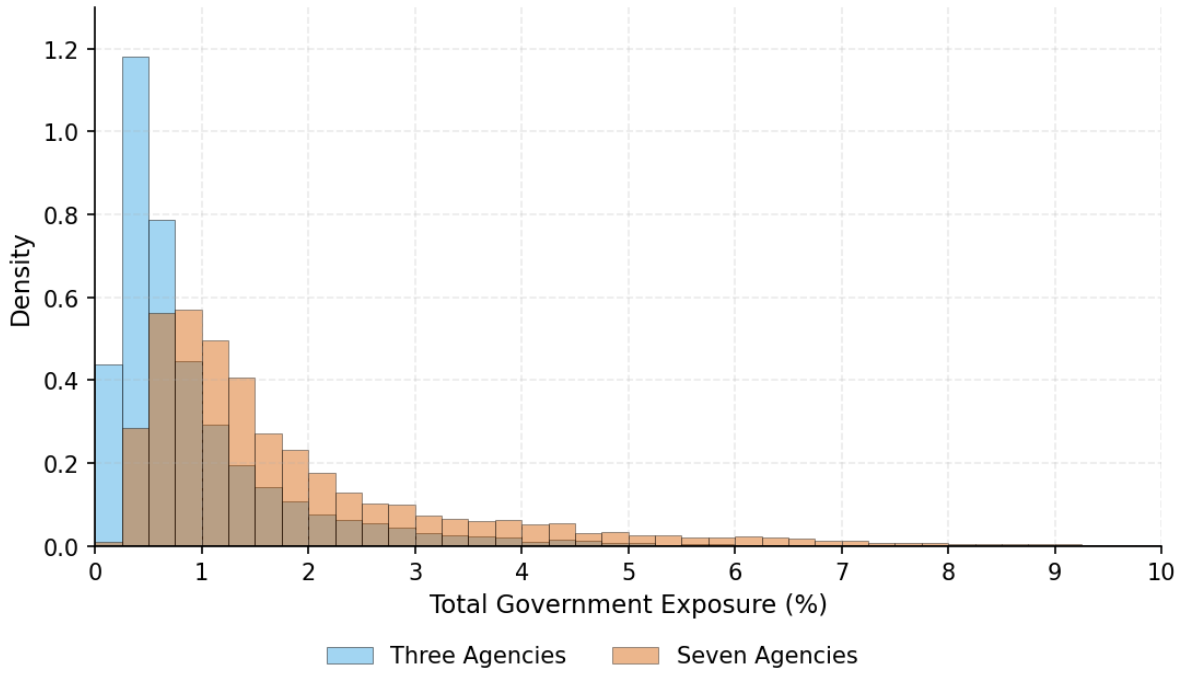
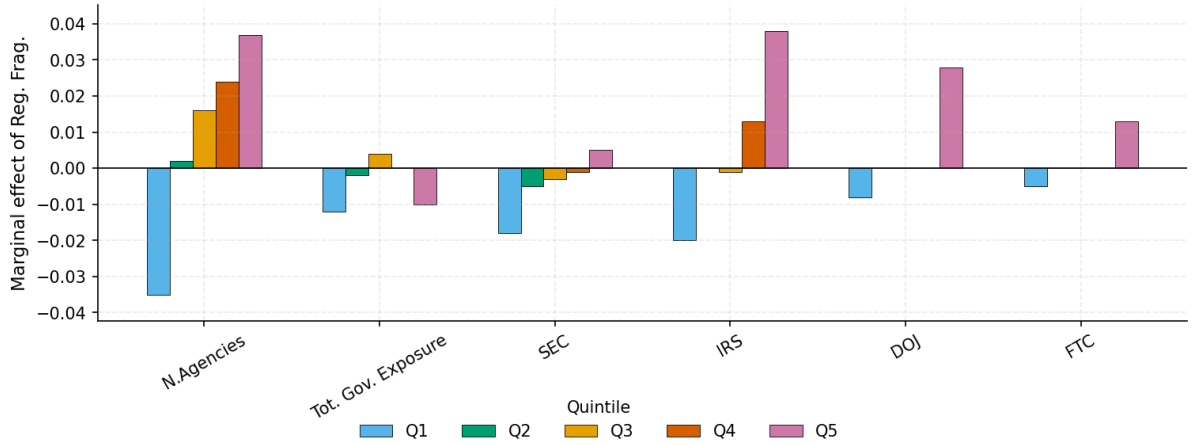


Figure 2: The Marginal Effect of Regulatory Fragmentation on Uncertainty-related Word Usage.

This figure presents a graphical representation of Table 3 and depicts the total marginal effect of regulatory fragmentation on log number of uncertainty-related words for 10-K filings (Subfigure A) or 10-Q filings (Subfigure B). Table 3 estimates a panel regression of the log number of uncertainty-related words in 10-K or 10-Q filings on measures of regulatory structure, firm characteristics, and firm and industry-by-year fixed effects. Regulatory fragmentation is also interacted with an indicator variable for the quintile of the government exposure measure specified, as measured by Armstrong, Glaeser, and Hoopes (2025). The total marginal effect is the sum of the base estimate of the association between regulatory fragmentation and log number of uncertainty-related words and the quintile of government exposure interaction term.

Subfigure A: Marginal effect of fragmentation on uncertainty-related words by quintile of exposure (10-K)



Subfigure B: Marginal effect of fragmentation on uncertainty-related words by quintile of exposure (10-Q)

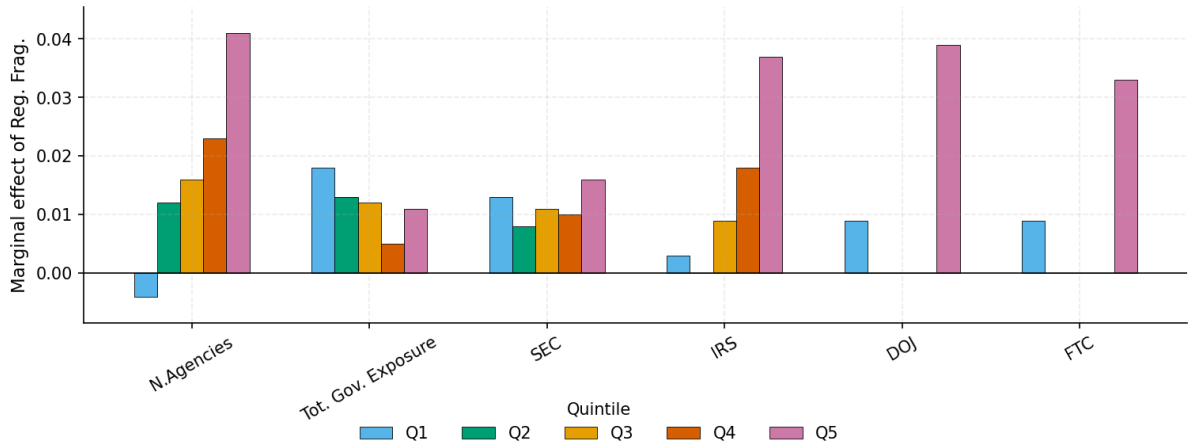
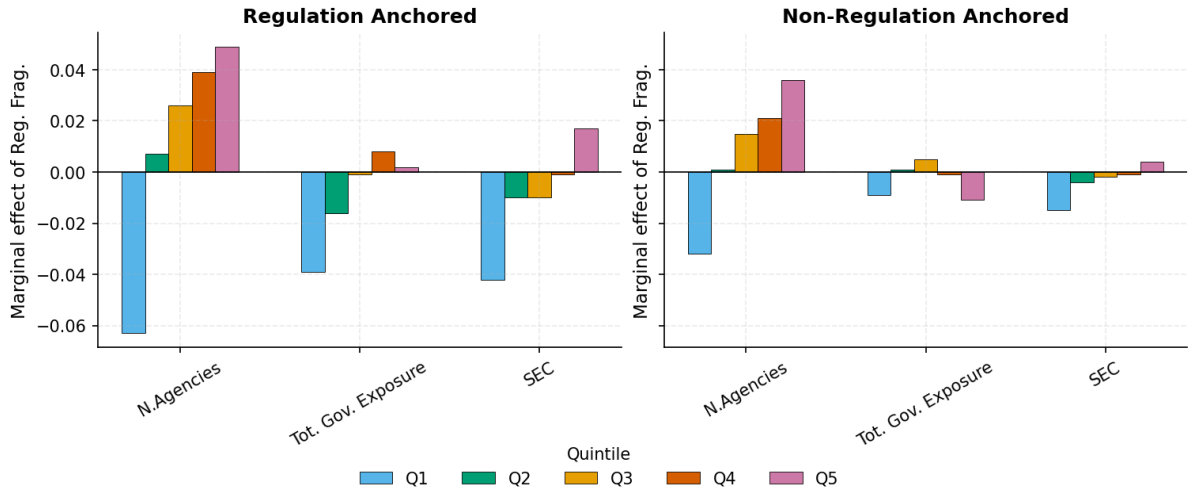


Figure 3: The Marginal Effect of Regulatory Fragmentation on Uncertainty-related Word Usage (Regulation Anchored versus Non-Regulation Anchored).

This figure presents a graphical representation of Table 4 and depicts the total marginal effect of regulatory fragmentation on log number of uncertainty-related words that are either Regulation Anchored or Non-Regulation Anchored for 10-K filings (Subfigure A) or 10-Q filings (Subfigure B). Table 4 estimates a panel regression of the log number of uncertainty-related words (either Regulation Anchored or Non-Regulation Anchored) in 10-K or 10-Q filings on measures of regulatory structure, firm characteristics, and firm and industry-by-year fixed effects. Regulatory fragmentation is also interacted with an indicator variable for the quintile of the government exposure measure specified, as measured by Armstrong, Glaeser, and Hoopes (2025). The total marginal effect is the sum of the base estimate of the association between regulatory fragmentation and log number of uncertainty-related words and the quintile of government exposure interaction term.

Subfigure A: Marginal effect of fragmentation on uncertainty-related words by quintile of exposure (10-K)



Subfigure B: Marginal effect of fragmentation on uncertainty-related words by quintile of exposure (10-Q)

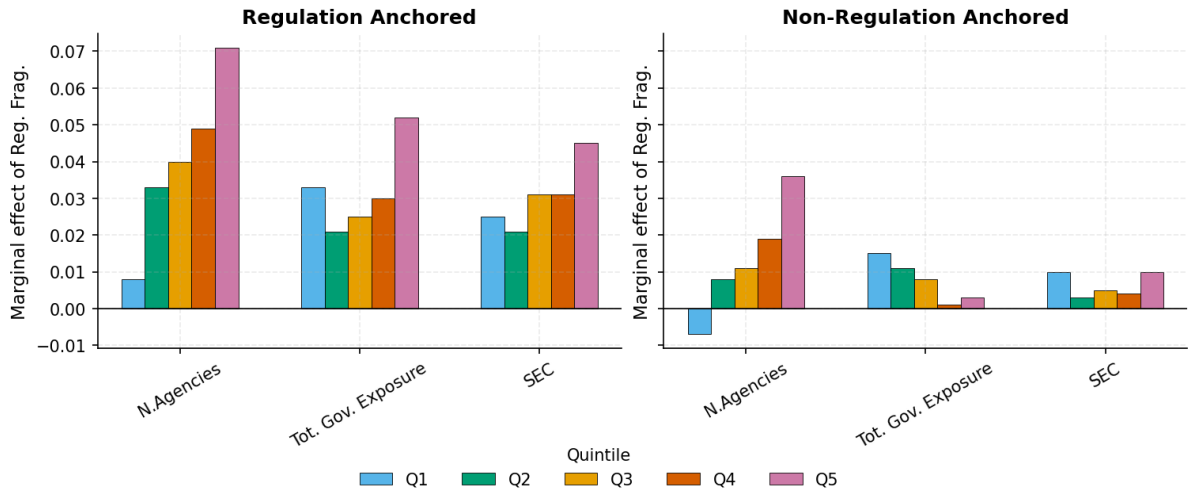
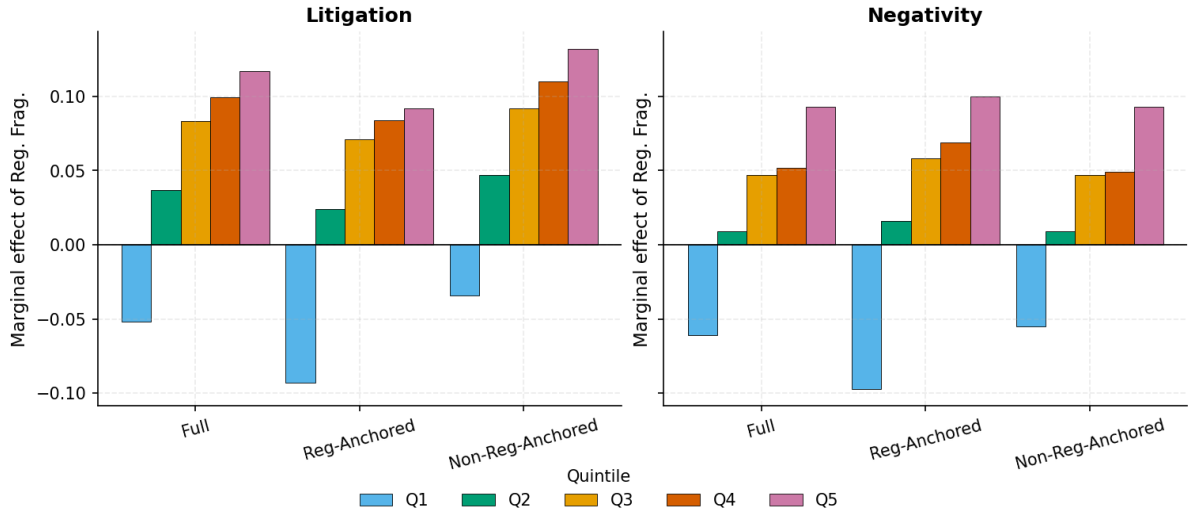


Figure 4: The Marginal Effect of Regulatory Fragmentation on Litigation- and Negativity-related Word Usage (Regulation Anchored versus Non-Regulation Anchored).

This figure presents a graphical representation of Table 5 and depicts the total marginal effect of regulatory fragmentation on log number of litigation- or negativity-related words for 10-K filings (Subfigure A) or 10-Q filings (Subfigure B). In each subfigure cross-sectional variation is generated through quintiles of number of agencies as measured by Armstrong, Glaeser, and Hoopes (2025), and bar groups are for the counts of all litigation- or negativity-related words, regulation-anchored litigation- or negativity-related words, or non-regulation-anchored litigation- or negativity-related words. These groupings correspond to the groupings of Table 5A and 5B.

Subfigure A: Marginal effect of fragmentation by quintile of number of agencies (10-K)



Subfigure B: Marginal effect of fragmentation by quintile of number of agencies (10-Q)

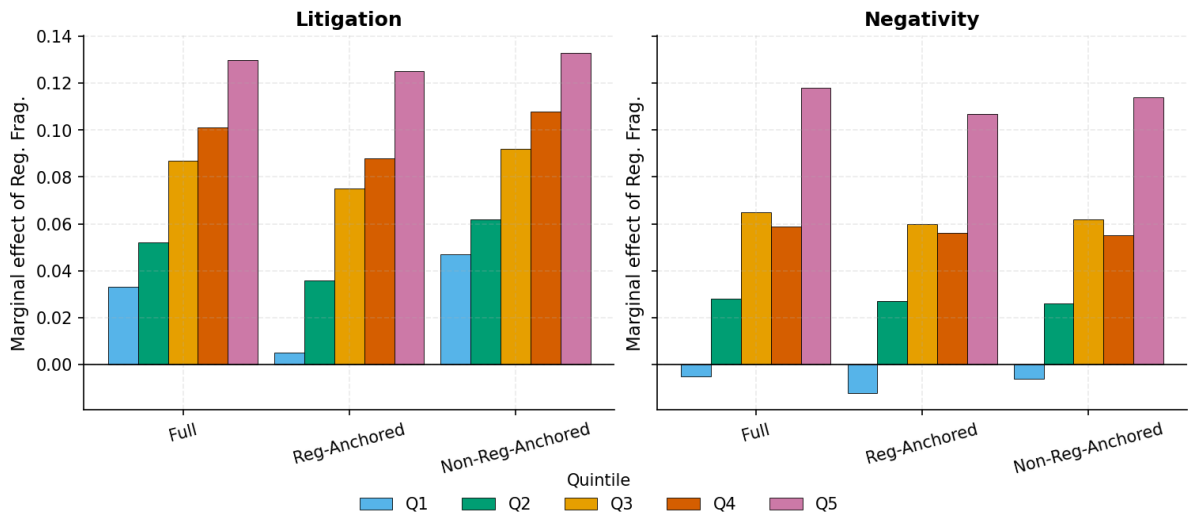
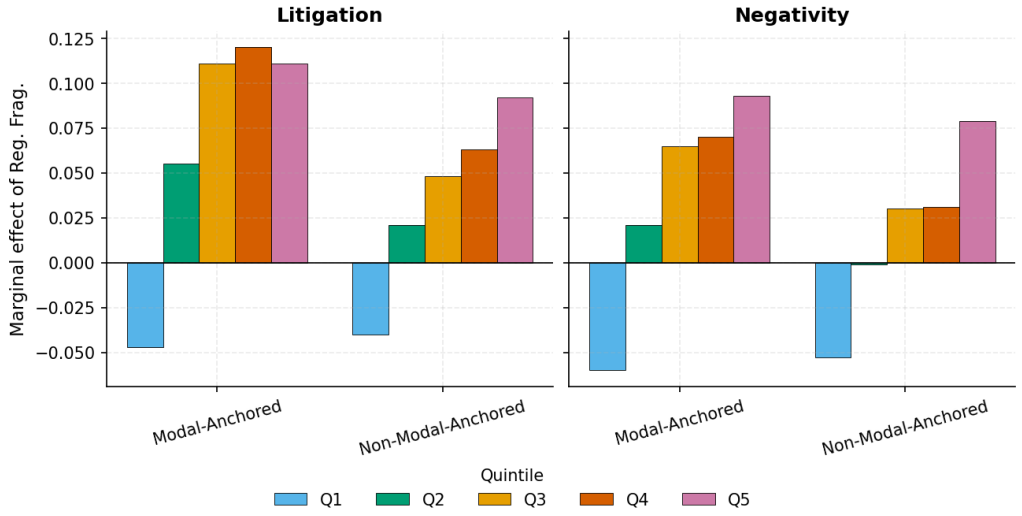


Figure 5: The Marginal Effect of Regulatory Fragmentation on Litigation- and Negativity-related Word Usage (Modal Anchored versus Non-Modal Anchored).

This figure presents a graphical representation of Table 6A and 6B and depicts the total marginal effect of regulatory fragmentation on log number of litigation- or negativity-related words for 10-K filings (Subfigure A) or 10-Q filings (Subfigure B). In each subfigure cross-sectional variation is generated through quintiles of number of agencies as measured by Armstrong, Glaeser, and Hoopes (2025), and bar groups are for the counts of modal-anchored litigation- or negativity-related words, or non-modal-anchored litigation- or negativity-related words. These groupings correspond to the groupings of Table 6A and 6B.

Subfigure A: Marginal effect of fragmentation by quintile of number of agencies (10-K)



Subfigure B: Marginal effect of fragmentation by quintile of number of agencies (10-Q)

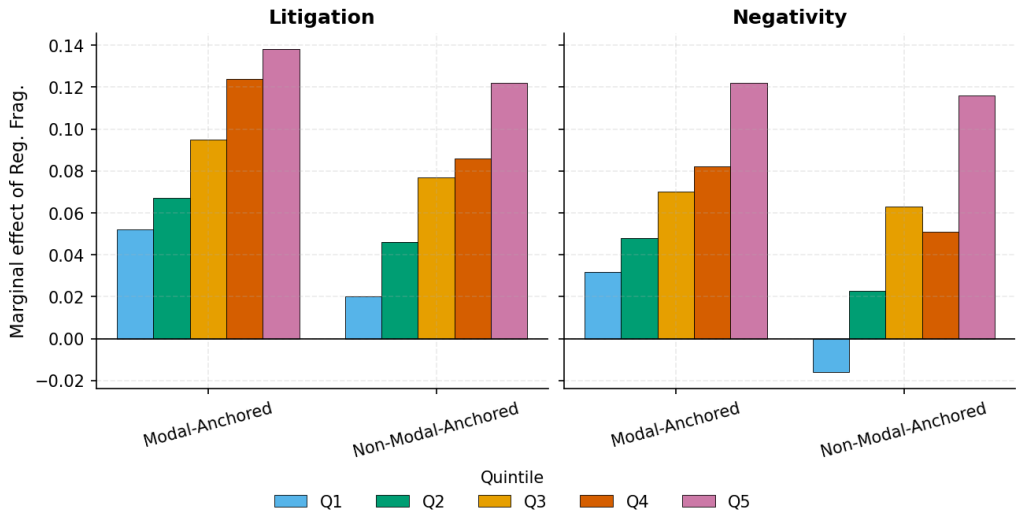
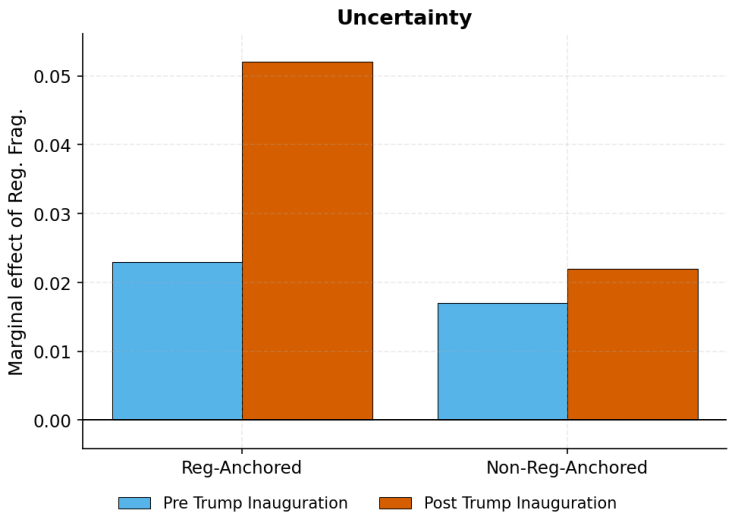


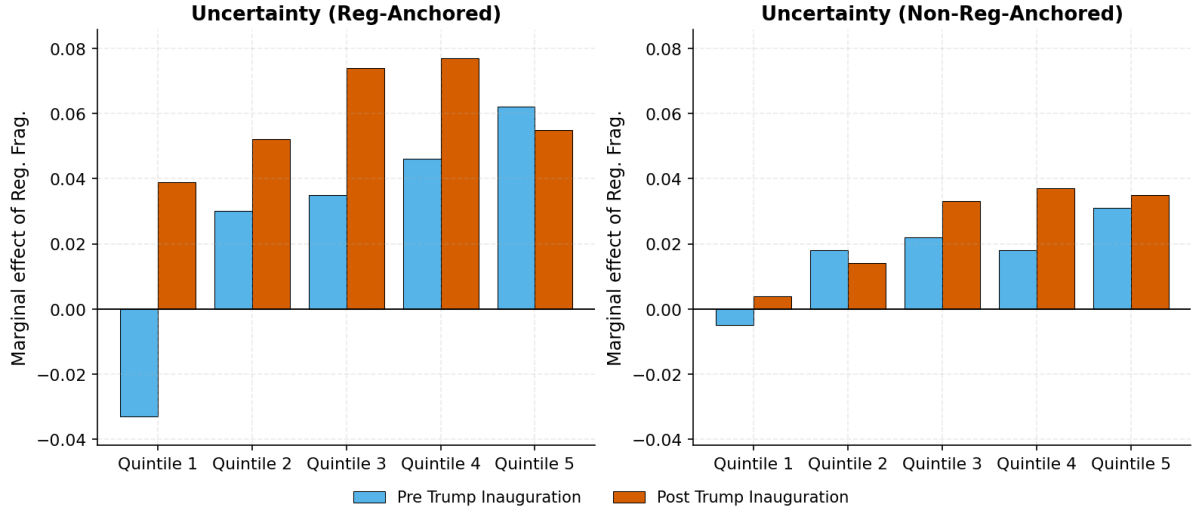
Figure 6: The Marginal Effect of Regulatory Fragmentation on Uncertainty-related Word Usage.

This figure presents a graphical representation of Table 7. Subfigure A depicts the total marginal effect of regulatory fragmentation on log number of uncertainty-related words for 10-K filings either before or after President Trump's 2017 inauguration. Subfigure B depicts the total marginal effect of regulatory fragmentation on log number of uncertainty-related words either regulation-anchored, or non-regulation-anchored for 10-K filings either before or after President Trump's 2017 inauguration with cross-sectional variation generated by quintiles of number of agencies as measured by Armstrong, Glaeser, and Hoopes (2025).

Subfigure A: Marginal effect of fragmentation on uncertainty-related words pre- or post-inauguration (10-K)



Subfigure B: Marginal effect of fragmentation on uncertainty-related words pre- or post-inauguration by quintile of number of agencies (10-K)



Tables:

Table 1: Firm Level Summary Statistics

Panel A presents summary statistics for firm characteristics based on the sample of firms that have all data available for analyzing the text in their financial filings (the sample used in Table 2). Regulation Quantity, Topic Dispersion, and Regulatory Fragmentation are presented as levels while in later analysis these variables are normalized to have a mean of zero and a standard deviation of one. Panel B presents the univariate correlations between key measures of outcomes and the normalized variables used in the analysis.

Panel A: Firm characteristics

Variables	Mean	Median	Std. Dev.
Log(Sales)	5.439	5.532	2.498
Tobin's Q	2.209	1.111	5.986
EBITDA / AT	-0.028	0.082	0.664
Book Leverage	0.238	0.172	0.246
Asset Tangibility	0.218	0.125	0.238
Number of Segments	4.193	3	3.307
Regulation Fragmentation	0.800	0.802	0.031
Topic Dispersion	0.929	0.935	0.023
Regulation Quantity	11.858	11.828	0.181
Number Agencies	4.169	3	3.206
Total Gov't Exposure	0.011	0.006	0.012
SEC Exposure	6.471	4	9.215
DOJ Exposure	0.372	0	1.810
IRS Exposure	1.511	0	3.188
FTC Exposure	0.334	0	1.565

Panel B: Matrix of correlations

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) Regulatory Fragmentation	1.00								
(2) Topic Dispersion	0.00	1.00							
(3) Regulation Quantity	-0.26	-0.27	1.00						
(4) Number of Agencies	-0.16	-0.18	0.20	1.00					
(5) Total Gov't Exposure	-0.22	0.03	0.09	0.50	1.00				
(6) SEC Exposure	-0.15	-0.07	0.10	0.28	0.33	1.00			
(7) DOJ Exposure	-0.08	0.02	0.05	0.24	0.27	0.15	1.00		
(8) IRS Exposure	-0.08	-0.06	0.08	0.33	0.10	0.15	0.10	1.00	
(9) FTC Exposure	-0.06	0.06	0.04	0.19	0.19	0.07	0.13	0.07	1.00

Table 2: Panel Regression of Uncertainty-Related Words

Panel A presents the results of a panel regression of the log number of uncertainty-related words in either 10-K or 10-Q filings on measures of regulatory structure, firm characteristics, and firm fixed effects. Columns 1–2 present the full sample of all uncertainty-related words. Columns 3–4 isolate just uncertainty-related words in proximity to regulation anchor terms, while columns 5–6 identify uncertainty-related words not in proximity to regulation anchor terms. Panel B compares the full sample estimates (Columns 1–2 of Panel A) to a subsample of firms with assets that did not change more than 20% year-over-year (Columns 3–4) or firms that had the same number of segments as the previous year in the Compustat segments data (Columns 5–6), and repeats the analysis of Columns 3–4 of Panel A (uncertainty-related words in proximity to regulation anchor terms). Data variables are defined in Appendix A. Panel B controls are the same as Panel A but omitted for exposition. Standard errors are presented in parentheses and are clustered at the Fama-French 48 industry level. ***, **, * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Panel A: Dependent variable is the log number of uncertainty-related words.

	Full Sample		Regulation Anchored		Non-Regulation Anchored	
	(1)	(2)	(3)	(4)	(5)	(6)
	10-K	10-Q	10-K	10-Q	10-K	10-Q
Reg. Fragmentation	-0.003	0.009	0.020***	0.040***	-0.006	0.005
	(0.005)	(0.006)	(0.006)	(0.009)	(0.004)	(0.007)
Topic Dispersion	0.012	0.020*	0.046***	0.086***	0.005	0.008
	(0.011)	(0.010)	(0.015)	(0.016)	(0.010)	(0.010)
Reg. Quantity	0.041***	-0.026**	0.086***	0.056***	0.029***	-0.046***
	(0.006)	(0.012)	(0.005)	(0.007)	(0.006)	(0.015)
Log File Size	0.415***	0.484***	0.563***	0.633***	0.386***	0.459***
	(0.003)	(0.004)	(0.011)	(0.012)	(0.003)	(0.005)
Log Sales [t-1]	0.035***	0.018***	0.033***	-0.002	0.035***	0.022***
	(0.005)	(0.004)	(0.009)	(0.007)	(0.005)	(0.004)
Tobin's Q [t-1]	-0.001	-0.002***	-0.000	-0.002***	-0.001	-0.002***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
EBITDA/Assets [t-1]	-0.015***	-0.017***	-0.016**	-0.008	-0.016***	-0.020***
	(0.005)	(0.005)	(0.007)	(0.007)	(0.005)	(0.005)
Book Leverage [t-1]	0.030*	0.057***	-0.010	0.033	0.040**	0.067***
	(0.015)	(0.020)	(0.019)	(0.024)	(0.015)	(0.024)
Asset Tangibility [t-1]	-0.078***	-0.096***	-0.157***	-0.054	-0.071**	-0.106**
	(0.029)	(0.035)	(0.047)	(0.047)	(0.031)	(0.041)
N. Segments [t-1]	0.009***	0.009***	0.011***	0.009***	0.009***	0.009***
	(0.001)	(0.001)	(0.002)	(0.003)	(0.001)	(0.001)
Constant	0.280***	-1.300***	-3.652***	-5.108***	0.483***	-1.198***
	(0.051)	(0.062)	(0.181)	(0.140)	(0.049)	(0.077)
Fixed Effects	Firm	Firm	Firm	Firm	Firm	Firm
Adj. R-squared	0.910	0.882	0.887	0.821	0.900	0.867

Observations	80,745	247,871	80,745	247,871	80,745	247,871

Panel B: Dependent variable is the log number of uncertainty-related words in proximity to regulation anchor terms.

	Full Sample		Limited Growth		Constant Segments	
	(1)	(2)	(3)	(4)	(5)	(6)
	10-K	10-Q	10-K	10-Q	10-K	10-Q
Reg. Fragmentation	0.020***	0.040***	0.025***	0.045***	0.016**	0.040***
	(0.006)	(0.009)	(0.006)	(0.009)	(0.006)	(0.008)
Topic Dispersion	0.046***	0.086***	0.039**	0.082***	0.036**	0.074***
	(0.015)	(0.016)	(0.018)	(0.015)	(0.017)	(0.014)
Reg. Quantity	0.086***	0.056***	0.083***	0.060***	0.087***	0.046***
	(0.005)	(0.007)	(0.004)	(0.008)	(0.004)	(0.007)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Fixed Effects	Firm	Firm	Firm	Firm	Firm	Firm
Adj. R-squared	0.887	0.821	0.893	0.831	0.890	0.828
Observations	80,745	247,871	54,388	168,669	61,145	188,868

Table 3: Panel Regression of Uncertainty based on Exposure to the Government

Panel A presents the results of a panel regression of the log number of uncertainty-related words in 10-K filings on measures of regulatory structure, firm characteristics, and firm and industry-by-year fixed effects. Regulatory fragmentation is also interacted with an indicator variable for the quintile of the government exposure measure specified in the column label. Panel B performs a similar analysis with the dependent variable as the log number of uncertainty-related words in the 10-Q filings, with controls omitted for exposition. Data variables are defined in Appendix A. Standard errors are presented in parentheses and are clustered at the Fama-French 48 industry level. ***, **, * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Panel A: Dependent variable is the log number of uncertainty-related words in 10-K filings.

Interaction Term	(1) N. Agencies	(2) Tot. Gov. Exposure	(3) SEC	(4) IRS	(5) DOJ	(6) FTC
Reg. Fragmentation	-0.035***	-0.012	-0.018***	-0.020***	-0.008	-0.005
	(0.006)	(0.008)	(0.006)	(0.006)	(0.005)	(0.005)
Reg. Frag X Q2	0.037***	0.010*	0.013**			
	(0.005)	(0.005)	(0.005)			
Reg. Frag X Q3	0.051***	0.016***	0.015**	0.019***		
	(0.006)	(0.006)	(0.006)	(0.005)		
Reg. Frag X Q4	0.059***	0.012	0.017***	0.033***		
	(0.006)	(0.008)	(0.005)	(0.005)		
Reg. Frag X Q5	0.072***	0.002	0.023***	0.058***	0.036***	0.018**
	(0.008)	(0.008)	(0.005)	(0.004)	(0.005)	(0.007)
Interaction Q2	0.097***	0.035***	0.045***			
	(0.006)	(0.007)	(0.005)			
Interaction Q3	0.151***	0.055***	0.068***	0.050***		
	(0.009)	(0.008)	(0.005)	(0.005)		
Interaction Q4	0.214***	0.063***	0.108***	0.082***		
	(0.011)	(0.011)	(0.006)	(0.007)		
Interaction Q5	0.300***	0.052***	0.182***	0.151***	0.070***	0.087***
	(0.014)	(0.013)	(0.007)	(0.011)	(0.010)	(0.009)
Topic Dispersion	-0.001	0.010	0.004	0.015	0.012	0.011
	(0.007)	(0.009)	(0.009)	(0.010)	(0.009)	(0.009)
Reg. Quantity	0.015***	0.017***	0.018***	0.015***	0.016***	0.017***
	(0.003)	(0.004)	(0.003)	(0.003)	(0.003)	(0.004)
Log File Size	0.319***	0.341***	0.332***	0.332***	0.341***	0.342***
	(0.010)	(0.011)	(0.011)	(0.011)	(0.012)	(0.012)
Log Sales [t-1]	0.025***	0.029***	0.030***	0.027***	0.028***	0.029***
	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)

Tobin's Q [t-1]	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
EBITDA/Assets [t-1]	-0.010**	-0.010**	-0.008**	-0.009**	-0.010**	-0.011**
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
Book Leverage [t-1]	0.014	0.014	0.008	0.019	0.014	0.013
	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)
Asset Tangibility [t-1]	-0.056**	-0.053*	-0.051*	-0.055**	-0.053**	-0.049*
	(0.026)	(0.027)	(0.026)	(0.026)	(0.026)	(0.026)
N. Segments [t-1]	0.007***	0.008***	0.008***	0.007***	0.008***	0.008***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Constant	1.628***	1.357***	1.467***	1.501***	1.393***	1.375***
	(0.139)	(0.165)	(0.158)	(0.161)	(0.168)	(0.169)
Fixed Effects	Firm, IndustryYear	Firm, IndustryYear	Firm, IndustryYear	Firm, IndustryYear	Firm, IndustryYear	Firm, IndustryYear
Adj. R-squared	0.923	0.917	0.919	0.919	0.917	0.917
Observations	80,745	80,745	80,745	80,745	80,745	80,745

Panel B: Dependent variable is the log number of uncertainty-related words in 10-Q filings.

Interaction Term	(1) N. Agencies	(2) Tot. Gov. Exposure	(3) SEC	(4) IRS	(5) DOJ	(6) FTC
Reg. Fragmentation	-0.004	0.018**	0.013*	0.003	0.009	0.009
	(0.007)	(0.008)	(0.007)	(0.008)	(0.007)	(0.007)
Reg. Frag X Q2	0.016***	-0.005	-0.005			
	(0.005)	(0.007)	(0.006)			
Reg. Frag X Q3	0.020***	-0.006	-0.002	0.006		
	(0.005)	(0.007)	(0.006)	(0.005)		
Reg. Frag X Q4	0.027***	-0.013	-0.003	0.015**		
	(0.007)	(0.008)	(0.006)	(0.007)		
Reg. Frag X Q5	0.045***	-0.007	0.003	0.034***	0.030***	0.024***
	(0.007)	(0.011)	(0.009)	(0.005)	(0.005)	(0.007)
Interaction Q2	0.015**	-0.002	0.004			
	(0.006)	(0.007)	(0.006)			
Interaction Q3	0.016*	-0.011	0.011*	0.005		
	(0.009)	(0.011)	(0.006)	(0.006)		
Interaction Q4	0.032***	-0.015	0.024***	0.004		
	(0.009)	(0.013)	(0.007)	(0.007)		
Interaction Q5	0.064***	-0.029**	0.048***	0.024***	0.040***	0.029***
	(0.012)	(0.013)	(0.007)	(0.007)	(0.011)	(0.010)
Topic Dispersion	0.036***	0.039***	0.036***	0.039***	0.037***	0.037***
	(0.009)	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)
Reg. Quantity	0.049***	0.048***	0.050***	0.048***	0.049***	0.049***
	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Fixed Effects	Firm, IndustryYear	Firm, IndustryYear	Firm, IndustryYear	Firm, IndustryYear	Firm, IndustryYear	Firm, IndustryYear
Adj. R-squared	0.888	0.888	0.888	0.888	0.888	0.888
Observations	247,871	247,871	247,871	247,871	247,871	247,871

Table 4: Panel Regression of Regulation Anchored and Non-Regulation Uncertainty-Related Words based on Exposure to the Government

Panel A presents the results of a panel regression of the log number of uncertainty-related words in 10-K filings on measures of regulatory structure, firm characteristics, and firm and industry-by-year fixed effects. Columns 1–3 use regulation-anchored uncertainty-related words as the dependent variable, while columns 4–6 use non-regulation-anchored uncertainty-related words as the dependent variable. Regulatory fragmentation is also interacted with an indicator variable for the quintile of the government exposure measure specified in the column label, as measured by Armstrong, Glaeser, and Hoopes (2025). Panel B performs a similar analysis with the dependent variable as the log number of uncertainty-related words in the 10-Q filings, with controls omitted for exposition. Data variables are defined in Appendix A. Standard errors are presented in parentheses and are clustered at the Fama-French 48 industry level. ***, **, * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Panel A: Dependent variable is the log number of uncertainty-related words in 10-K filings.

	Regulation Anchored			Non-Regulation Anchored		
	(1)	(2)	(3)	(4)	(5)	(6)
Interaction Term	N. Agencies	Tot. Gov. Exposure	SEC	N. Agencies	Tot. Gov. Exposure	SEC
Reg. Fragmentation	-0.063***	-0.039***	-0.042***	-0.032***	-0.009	-0.015**
	(0.008)	(0.011)	(0.010)	(0.006)	(0.008)	(0.006)
Reg. Frag X Q2	0.070***	0.023***	0.032***	0.033***	0.010*	0.011**
	(0.007)	(0.007)	(0.008)	(0.005)	(0.005)	(0.005)
Reg. Frag X Q3	0.089***	0.038***	0.032***	0.047***	0.014**	0.013**
	(0.008)	(0.008)	(0.008)	(0.006)	(0.006)	(0.006)
Reg. Frag X Q4	0.102***	0.047***	0.041***	0.053***	0.008	0.014**
	(0.010)	(0.010)	(0.008)	(0.006)	(0.008)	(0.005)
Reg. Frag X Q5	0.112***	0.041***	0.059***	0.068***	-0.002	0.019***
	(0.011)	(0.010)	(0.010)	(0.008)	(0.008)	(0.005)
Interaction Q2	0.153***	0.099***	0.078***	0.089***	0.027***	0.041***
	(0.010)	(0.012)	(0.007)	(0.006)	(0.006)	(0.004)
Interaction Q3	0.237***	0.157***	0.109***	0.138***	0.041***	0.063***
	(0.015)	(0.016)	(0.007)	(0.009)	(0.007)	(0.005)
Interaction Q4	0.316***	0.207***	0.166***	0.198***	0.040***	0.101***
	(0.015)	(0.019)	(0.012)	(0.010)	(0.011)	(0.006)
Interaction Q5	0.418***	0.251***	0.272***	0.278***	0.014	0.170***
	(0.020)	(0.022)	(0.017)	(0.014)	(0.013)	(0.007)
Topic Dispersion	0.021	0.030**	0.027*	-0.004	0.007	-0.000
	(0.013)	(0.014)	(0.014)	(0.007)	(0.009)	(0.008)
Reg. Quantity	0.004	0.008*	0.009*	0.017***	0.019***	0.020***
	(0.005)	(0.005)	(0.005)	(0.004)	(0.004)	(0.003)
Log File Size	0.371***	0.398***	0.388***	0.312***	0.332***	0.323***
	(0.016)	(0.019)	(0.018)	(0.009)	(0.010)	(0.010)
Log Sales [t-1]	0.021***	0.027***	0.028***	0.025***	0.029***	0.029***

	(0.006)	(0.006)	(0.006)	(0.005)	(0.005)	(0.005)
Tobin's Q [t-1]	0.000	0.000	0.000	-0.001	-0.001	-0.000
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
EBITDA/Assets [t-1]	-0.005	-0.006	-0.004	-0.011***	-0.011***	-0.010**
	(0.005)	(0.005)	(0.005)	(0.004)	(0.004)	(0.004)
Book Leverage [t-1]	-0.019	-0.021	-0.029	0.022*	0.022*	0.016
	(0.018)	(0.018)	(0.017)	(0.012)	(0.012)	(0.013)
Asset Tangibility [t-1]	-0.082**	-0.080**	-0.075**	-0.047*	-0.043	-0.042
	(0.035)	(0.037)	(0.036)	(0.027)	(0.028)	(0.027)
N. Segments [t-1]	0.008***	0.010***	0.010***	0.007***	0.008***	0.008***
	(0.001)	(0.001)	(0.002)	(0.001)	(0.001)	(0.001)
Constant	-0.941***	-1.346***	-1.158***	1.535***	1.287***	1.385***
	(0.245)	(0.281)	(0.273)	(0.124)	(0.149)	(0.142)
Fixed Effects	Firm, IndustryYear	Firm, IndustryYear	Firm, IndustryYear	Firm, IndustryYear	Firm, IndustryYear	Firm, IndustryYear
Adj. R-squared	0.906	0.901	0.902	0.913	0.908	0.910
Observations	80,745	80,745	80,745	80,745	80,745	80,745

Panel B: Dependent variable is the log number of uncertainty-related words in 10-Q filings.

	Regulation Anchored			Non-Regulation Anchored		
	(1)	(2)	(3)	(4)	(5)	(6)
Interaction Term	N. Agencies	Tot. Gov. Exposure	SEC	N. Agencies	Tot. Gov. Exposure	SEC
Reg. Fragmentation	0.008	0.033***	0.025**	-0.007	0.015*	0.010
	(0.010)	(0.012)	(0.010)	(0.007)	(0.008)	(0.007)
Reg. Frag X Q2	0.025***	-0.012	-0.004	0.015**	-0.004	-0.007
	(0.008)	(0.008)	(0.010)	(0.006)	(0.007)	(0.007)
Reg. Frag X Q3	0.032***	-0.008	0.006	0.018***	-0.007	-0.005
	(0.010)	(0.009)	(0.009)	(0.005)	(0.008)	(0.006)
Reg. Frag X Q4	0.041***	-0.003	0.006	0.026***	-0.014*	-0.006
	(0.011)	(0.012)	(0.009)	(0.006)	(0.008)	(0.006)
Reg. Frag X Q5	0.063***	0.019	0.020*	0.043***	-0.012	-0.000
	(0.011)	(0.014)	(0.010)	(0.008)	(0.010)	(0.010)
Interaction Q2	0.027**	0.035***	0.005	0.014**	-0.006	0.004
	(0.011)	(0.012)	(0.010)	(0.006)	(0.007)	(0.005)
Interaction Q3	0.025*	0.038**	0.018**	0.015*	-0.017	0.010
	(0.014)	(0.017)	(0.009)	(0.009)	(0.011)	(0.006)
Interaction Q4	0.037**	0.039**	0.034***	0.032***	-0.022*	0.024***
	(0.014)	(0.019)	(0.012)	(0.008)	(0.013)	(0.007)
Interaction Q5	0.076***	0.035*	0.063***	0.061***	-0.043***	0.048***
	(0.019)	(0.019)	(0.011)	(0.011)	(0.013)	(0.007)
Topic Dispersion	0.072***	0.073***	0.071***	0.032***	0.036***	0.032***
	(0.014)	(0.014)	(0.014)	(0.010)	(0.010)	(0.010)
Reg. Quantity	0.039***	0.038***	0.040***	0.052***	0.051***	0.053***
	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Fixed Effects	Firm, IndustryYear	Firm, IndustryYear	Firm, IndustryYear	Firm, IndustryYear	Firm, IndustryYear	Firm, IndustryYear
Adj. R-squared	0.832	0.832	0.832	0.876	0.876	0.876
Observations	247,871	247,871	247,871	247,871	247,871	247,871

Table 5: Panel Regression of Litigation- or Negativity-Related Words

Panel A presents the results of a panel regression of the log number of litigation- or negativity-related words in 10-K filings on measures of regulatory structure, firm characteristics, and firm and industry-by-year fixed effects. The measure of regulatory fragmentation is interacted with an indicator variable for the quintile of number of agencies as measured by Armstrong, Glaeser, and Hoopes (2025). Columns 1–2 present the estimates using the log total number of litigation- or negativity-related words, while columns 3–4 use the log number of litigation- or negativity-related words that are regulation-anchored. Columns 5–6 perform the same analysis for the log total number of litigation- or negativity-related words that are non-regulation-anchored. Panel B performs a similar analysis with 10-Q filings, with controls omitted for exposition. Data variables are defined in Appendix A. Standard errors are presented in parentheses and are clustered at the Fama-French 48 industry level. ***, **, * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Panel A: Dependent variable is the log number of words related to litigation or negativity in 10-K filings.

	Full Sample		Regulation Anchored		Non-Regulation Anchored	
	(1)	(2)	(3)	(4)	(5)	(6)
Dependent Variable	Litigation	Negativity	Litigation	Negativity	Litigation	Negativity
Reg. Fragmentation	-0.052***	-0.061***	-0.093***	-0.097***	-0.034***	-0.055***
	(0.012)	(0.011)	(0.011)	(0.013)	(0.013)	(0.011)
Reg. Frag X Q2	0.089***	0.070***	0.117***	0.113***	0.081***	0.064***
	(0.007)	(0.008)	(0.010)	(0.009)	(0.008)	(0.008)
Reg. Frag X Q3	0.135***	0.108***	0.164***	0.155***	0.126***	0.102***
	(0.013)	(0.012)	(0.015)	(0.015)	(0.013)	(0.011)
Reg. Frag X Q4	0.151***	0.113***	0.177***	0.166***	0.144***	0.104***
	(0.017)	(0.014)	(0.019)	(0.017)	(0.017)	(0.013)
Reg. Frag X Q5	0.169***	0.154***	0.185***	0.197***	0.166***	0.148***
	(0.016)	(0.015)	(0.019)	(0.019)	(0.015)	(0.015)
Interaction Q2	0.270***	0.151***	0.318***	0.220***	0.264***	0.142***
	(0.013)	(0.010)	(0.015)	(0.014)	(0.014)	(0.009)
Interaction Q3	0.426***	0.237***	0.494***	0.346***	0.416***	0.220***
	(0.019)	(0.015)	(0.021)	(0.019)	(0.019)	(0.014)
Interaction Q4	0.594***	0.341***	0.675***	0.473***	0.582***	0.320***
	(0.026)	(0.019)	(0.026)	(0.025)	(0.026)	(0.018)
Interaction Q5	0.782***	0.469***	0.859***	0.626***	0.778***	0.440***
	(0.033)	(0.027)	(0.036)	(0.035)	(0.033)	(0.025)
Topic Dispersion	0.068***	0.008	0.071***	0.025	0.065***	0.004
	(0.018)	(0.012)	(0.022)	(0.015)	(0.016)	(0.012)
Reg. Quantity	0.023***	0.021***	0.020**	0.024***	0.018**	0.020***
	(0.007)	(0.006)	(0.008)	(0.007)	(0.007)	(0.006)
Log File Size	0.600***	0.578***	0.619***	0.657***	0.602***	0.558***
	(0.021)	(0.016)	(0.031)	(0.024)	(0.018)	(0.015)

Log Sales [t-1]	0.004	0.005	-0.010	-0.006	0.009*	0.006
	(0.005)	(0.004)	(0.006)	(0.005)	(0.005)	(0.004)
Tobin's Q [t-1]	-0.002***	-0.004***	0.001	-0.002*	-0.002***	-0.004***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
EBITDA/Assets [t-1]	-0.018***	-0.040***	-0.005	-0.024***	-0.023***	-0.044***
	(0.007)	(0.007)	(0.006)	(0.006)	(0.008)	(0.008)
Book Leverage [t-1]	0.034	0.052**	-0.018	-0.007	0.049*	0.067***
	(0.025)	(0.020)	(0.025)	(0.023)	(0.027)	(0.020)
Asset Tangibility [t-1]	0.021	-0.004	0.017	-0.040	0.027	0.011
	(0.037)	(0.033)	(0.049)	(0.044)	(0.039)	(0.032)
N. Segments [t-1]	0.000	0.006***	-0.002	0.005*	0.001	0.006***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Constant	-2.323***	-1.765***	-3.914***	-4.603***	-2.725***	-1.720***
	(0.310)	(0.231)	(0.452)	(0.343)	(0.255)	(0.214)
Fixed Effects	Firm, IndustryYear	Firm, IndustryYear	Firm, IndustryYear	Firm, IndustryYear	Firm, IndustryYear	Firm, IndustryYear
Adj. R-squared	0.801	0.823	0.820	0.815	0.777	0.816
Observations	80,737	80,735	80,737	80,735	80,737	80,735

Panel B: Dependent variable is the log number of words related to litigation or negativity in 10-Q filings.

	Full Sample		Regulation Anchored		Non-Regulation Anchored	
	(1)	(2)	(3)	(4)	(5)	(6)
Dependent Variable	Litigation	Negativity	Litigation	Negativity	Litigation	Negativity
Reg. Fragmentation	0.033**	-0.005	0.005	-0.012	0.047***	-0.006
	(0.013)	(0.013)	(0.016)	(0.015)	(0.013)	(0.013)
Reg. Frag X Q2	0.019**	0.033***	0.031***	0.039***	0.015	0.032***
	(0.008)	(0.008)	(0.009)	(0.009)	(0.009)	(0.008)
Reg. Frag X Q3	0.054***	0.070***	0.070***	0.072***	0.045***	0.068***
	(0.011)	(0.009)	(0.012)	(0.010)	(0.012)	(0.010)
Reg. Frag X Q4	0.068***	0.064***	0.083***	0.068***	0.061***	0.061***
	(0.015)	(0.013)	(0.013)	(0.015)	(0.016)	(0.013)
Reg. Frag X Q5	0.097***	0.123***	0.120***	0.119***	0.086***	0.120***
	(0.013)	(0.014)	(0.016)	(0.016)	(0.013)	(0.013)
Interaction Q2	0.014	0.015	0.020	0.012	0.015	0.016*
	(0.010)	(0.009)	(0.013)	(0.011)	(0.010)	(0.009)
Interaction Q3	0.021	0.013	0.019	-0.001	0.023*	0.017
	(0.014)	(0.012)	(0.017)	(0.013)	(0.014)	(0.012)

Interaction Q4	0.040***	0.031***	0.045**	0.009	0.045***	0.039***
	(0.013)	(0.012)	(0.017)	(0.015)	(0.012)	(0.011)
Interaction Q5	0.049**	0.063***	0.056**	0.055**	0.054***	0.066***
	(0.018)	(0.018)	(0.025)	(0.024)	(0.018)	(0.017)
Topic Dispersion	0.184***	0.079***	0.199***	0.115***	0.178***	0.072***
	(0.023)	(0.016)	(0.028)	(0.017)	(0.022)	(0.017)
Reg. Quantity	0.033**	0.054***	0.022	0.059***	0.036**	0.053***
	(0.015)	(0.010)	(0.018)	(0.012)	(0.016)	(0.010)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Fixed Effects	Firm, IndustryYear	Firm, IndustryYear	Firm, IndustryYear	Firm, IndustryYear	Firm, IndustryYear	Firm, IndustryYear
Adj. R-squared	0.798	0.814	0.799	0.790	0.773	0.806
Observations	242,123	244,520	242,123	244,520	242,123	244,520

Table 6: Panel Regression of Litigation- or Negativity-Related Words based on Modal Anchor

Panel A presents the results of a panel regression of the log number of litigation- or negativity-related words in 10-K filings on measures of regulatory structure, firm characteristics, and firm and industry-by-year fixed effects. The measure of regulatory fragmentation is interacted with an indicator variable for the quintile of number of agencies as measured by Armstrong, Glaeser, and Hoopes (2025). Columns 1–2 present the estimates using the log number of litigation- or negativity-related words that are anchored by modal words. Columns 3–4 perform the same analysis for the log total number of litigation- or negativity-related words that are not anchored by modal words. Panel B performs a similar analysis with 10-Q filings, with controls omitted for exposition. Data variables are defined in Appendix A. Standard errors are presented in parentheses and are clustered at the Fama-French 48 industry level. ***, **, * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Panel A: Dependent variable is the log number of words related to litigation or negativity in 10-K filings.

	Modal Anchored		Not Modal Anchored	
	(1)	(2)	(3)	(4)
Dependent Variable	Litigation	Negativity	Litigation	Negativity
Reg. Fragmentation	-0.047***	-0.060***	-0.040***	-0.053***
	(0.017)	(0.012)	(0.009)	(0.011)
Reg. Frag X Q2	0.102***	0.081***	0.061***	0.052***
	(0.014)	(0.011)	(0.006)	(0.007)
Reg. Frag X Q3	0.158***	0.125***	0.088***	0.083***
	(0.016)	(0.013)	(0.011)	(0.011)
Reg. Frag X Q4	0.167***	0.130***	0.103***	0.084***
	(0.022)	(0.015)	(0.012)	(0.012)
Reg. Frag X Q5	0.158***	0.153***	0.132***	0.132***
	(0.018)	(0.017)	(0.014)	(0.015)
Interaction Q2	0.410***	0.256***	0.134***	0.063***
	(0.021)	(0.015)	(0.008)	(0.007)
Interaction Q3	0.654***	0.404***	0.208***	0.094***
	(0.027)	(0.022)	(0.012)	(0.011)
Interaction Q4	0.913***	0.566***	0.295***	0.148***
	(0.035)	(0.027)	(0.015)	(0.013)
Interaction Q5	1.233***	0.756***	0.390***	0.220***
	(0.043)	(0.033)	(0.021)	(0.021)
Topic Dispersion	0.081***	0.055***	0.052***	-0.022*
	(0.026)	(0.017)	(0.012)	(0.011)
Reg. Quantity	0.017*	0.019**	0.026***	0.022***
	(0.010)	(0.007)	(0.007)	(0.007)
Log File Size	0.675***	0.599***	0.464***	0.508***
	(0.033)	(0.024)	(0.012)	(0.011)

Log Sales [t-1]	-0.013*	-0.012**	0.023***	0.024***
	(0.008)	(0.005)	(0.004)	(0.004)
Tobin's Q [t-1]	-0.000	-0.001	-0.003***	-0.006***
	(0.001)	(0.001)	(0.001)	(0.001)
EBITDA/Assets [t-1]	-0.015*	-0.017***	-0.024***	-0.058***
	(0.008)	(0.005)	(0.006)	(0.011)
Book Leverage [t-1]	0.004	-0.005	0.082***	0.105***
	(0.038)	(0.023)	(0.016)	(0.022)
Asset Tangibility [t-1]	0.052	0.002	-0.001	0.002
	(0.051)	(0.043)	(0.033)	(0.040)
N. Segments [t-1]	-0.001	0.002	0.004**	0.010***
	(0.003)	(0.002)	(0.002)	(0.002)
Constant	-4.656***	-3.048***	-0.809***	-1.323***
	(0.487)	(0.353)	(0.174)	(0.158)
Fixed Effects	Firm, IndustryYear	Firm, IndustryYear	Firm, IndustryYear	Firm, IndustryYear
Adj. R-squared	0.601	0.776	0.918	0.826
Observations	80,737	80,735	80,737	80,735

Panel B: Dependent variable is the log number of words related to litigation or negativity in 10-Q filings.

	Modal Anchored		Not Modal Anchored	
	(1)	(2)	(3)	(4)
Dependent Variable	Litigation	Negativity	Litigation	Negativity
Reg. Fragmentation	0.052**	0.032**	0.020	-0.016
	(0.020)	(0.015)	(0.012)	(0.014)
Reg. Frag X Q2	0.015	0.016	0.026***	0.039***
	(0.016)	(0.011)	(0.006)	(0.008)
Reg. Frag X Q3	0.043**	0.038***	0.057***	0.079***
	(0.016)	(0.011)	(0.009)	(0.010)
Reg. Frag X Q4	0.072***	0.050***	0.066***	0.067***
	(0.016)	(0.014)	(0.013)	(0.013)
Reg. Frag X Q5	0.086***	0.090***	0.102***	0.132***
	(0.017)	(0.012)	(0.013)	(0.016)
Interaction Q2	0.023	0.018	0.014*	0.017*
	(0.015)	(0.012)	(0.008)	(0.009)
Interaction Q3	0.037*	0.022	0.018	0.014
	(0.021)	(0.015)	(0.011)	(0.011)
Interaction Q4	0.069***	0.049***	0.031***	0.027**
	(0.023)	(0.017)	(0.010)	(0.011)
Interaction Q5	0.091***	0.082***	0.047***	0.061***
	(0.028)	(0.020)	(0.017)	(0.019)
Topic Dispersion	0.240***	0.141***	0.141***	0.043***
	(0.030)	(0.021)	(0.018)	(0.014)
Reg. Quantity	0.013	0.066***	0.049***	0.058***
	(0.026)	(0.015)	(0.010)	(0.011)
Controls	Yes	Yes	Yes	Yes
Fixed Effects	Firm, IndustryYear	Firm, IndustryYear	Firm, IndustryYear	Firm, IndustryYear
Adj. R-squared	0.588	0.726	0.896	0.829
Observations	242,123	244,520	242,123	244,520

Table 7: Time Series Variation based on 2017 Shock to Regulatory Environment

Panel A presents the results of a panel regression of the log number of uncertainty-related words in 10-K filings on measures of regulatory structure, firm characteristics, and firm fixed effects. Column 1 isolates just uncertainty-related words in proximity to regulation anchor terms, while column 2 identifies uncertainty-related words not in proximity to regulation anchor terms. Panel B introduces cross-sectional variation in a triple interaction based on the quintile of the number of agencies as measured by Armstrong, Glaeser, and Hoopes (2025). The post-inauguration indicator (denoted Trump) is defined as a filing date after January 20, 2017. Data variables are defined in Appendix A. Standard errors are presented in parentheses and are clustered at the Fama-French 48 industry level. ***, **, * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Panel A: Pre- and Post-2017 Inauguration Analysis

	Regulation Anchored	Non-Regulation Anchored
	(1)	(2)
Reg. Fragmentation	0.023***	0.017***
	(0.007)	(0.004)
Reg. Frag X Trump	0.029***	0.005
	(0.008)	(0.007)
Topic Dispersion	0.045***	0.003
	(0.015)	(0.009)
Reg. Quantity	0.086***	0.034***
	(0.004)	(0.007)
Trump	0.061***	0.121***
	(0.013)	(0.011)
Log File Size	0.560***	0.379***
	(0.012)	(0.003)
Log Sales [t-1]	0.032***	0.030***
	(0.009)	(0.004)
Tobin's Q [t-1]	-0.000	-0.001
	(0.001)	(0.001)
EBITDA/Assets [t-1]	-0.015**	-0.014***
	(0.007)	(0.005)
Book Leverage [t-1]	-0.016	0.021
	(0.020)	(0.015)
Asset Tangibility [t-1]	-0.159***	-0.077**
	(0.047)	(0.032)
N. Segments [t-1]	0.011***	0.009***
	(0.002)	(0.001)
Constant	-3.607***	0.593***
	(0.188)	(0.043)

Fixed Effects	Firm	Firm
Adj. R-squared	0.887	0.902
Observations	80,745	80,745

Panel B: Pre- and Post-2017 Inauguration Analysis with triple interaction based on quintiles of the number of agencies.

	Regulation Anchored	Non-Regulation Anchored
	(1)	(2)
Reg. Fragmentation	-0.033***	-0.005
	(0.010)	(0.004)
Reg. Frag X Q2	0.063***	0.023***
	(0.007)	(0.006)
Reg. Frag X Q3	0.068***	0.027**
	(0.009)	(0.011)
Reg. Frag X Q4	0.079***	0.023**
	(0.012)	(0.011)
Reg. Frag X Q5	0.095***	0.036**
	(0.016)	(0.014)
Reg. Frag X Trump	0.072***	0.009
	(0.012)	(0.009)
Trump X Interaction	-0.101***	-0.036***
Q2	(0.018)	(0.013)
Trump X Interaction	-0.137***	-0.047*
Q3	(0.025)	(0.025)
Trump X Interaction	-0.148***	-0.065**
Q4	(0.023)	(0.027)
Trump X Interaction	-0.155***	-0.081***
Q5	(0.023)	(0.021)
Reg. Frag. X Trump X	-0.050***	-0.013
Interaction Q2	(0.016)	(0.012)
Reg. Frag. X Trump X	-0.033*	0.002
Interaction Q3	(0.019)	(0.022)
Reg. Frag. X Trump X	-0.041*	0.010
Interaction Q4	(0.022)	(0.021)
Reg. Frag. X Trump X	-0.079***	-0.005
Interaction Q5	(0.018)	(0.016)
Interaction Q2	0.160***	0.088***
	(0.010)	(0.006)

Interaction Q3	0.245***	0.139***
	(0.016)	(0.009)
Interaction Q4	0.319***	0.208***
	(0.015)	(0.010)
Interaction Q5	0.397***	0.292***
	(0.020)	(0.011)
Trump	0.164***	0.165***
	(0.022)	(0.012)
Topic Dispersion	0.026*	-0.010
	(0.014)	(0.008)
Reg. Quantity	0.086***	0.034***
	(0.005)	(0.006)
Controls	Yes	Yes
Fixed Effects	Firm	Firm
Adj. R-squared	0.894	0.908
Observations	80,745	80,745

Table 8: Panel Regression of Accounting Reporting Complexity

This table presents the results of a panel regression of the Accounting Reporting Complexity (ARC) of 10-K and 10-Q filings on measures of regulatory structure, firm characteristics, and firm and industry-by-year fixed effects. Columns 1–2 present the ARC based on the entire filing, while Columns 3–4 isolate the ARC for the financial tables (denoted "Face"), and columns 5–6 isolate the ARC for the financial statement notes (denoted "Notes"). Data variables are defined in Appendix A. Standard errors are presented in parentheses and are clustered at the Fama-French 48 industry level. ***, **, * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	ARC		ARC (Face)		ARC (Notes)	
	(1)	(2)	(3)	(4)	(5)	(6)
	10-K	10-Q	10-K	10-Q	10-K	10-Q
Reg. Fragmentation	-0.058***	-0.050***	-0.049***	-0.022***	-0.056***	-0.022***
	(0.014)	(0.010)	(0.009)	(0.007)	(0.015)	(0.007)
Topic Dispersion	-0.202***	-0.145***	-0.200***	-0.168***	-0.187***	-0.168***
	(0.057)	(0.035)	(0.052)	(0.040)	(0.056)	(0.040)
Reg. Quantity	-0.007	0.017***	0.021***	0.002	-0.014**	0.002
	(0.006)	(0.006)	(0.006)	(0.007)	(0.006)	(0.007)
Log Sales [t-1]	0.061***	0.044***	0.040***	0.047***	0.063***	0.047***
	(0.017)	(0.009)	(0.013)	(0.011)	(0.017)	(0.011)
Tobin's Q [t-1]	-0.003***	-0.001***	-0.003**	-0.002***	-0.002***	-0.002***
	(0.001)	(0.000)	(0.001)	(0.001)	(0.001)	(0.001)
EBITDA/Assets [t-1]	-0.013	-0.010	-0.013	-0.012	-0.011	-0.012
	(0.010)	(0.007)	(0.010)	(0.008)	(0.010)	(0.008)
Book Leverage [t-1]	0.191***	0.178***	0.166***	0.152***	0.186***	0.152***
	(0.039)	(0.024)	(0.025)	(0.020)	(0.042)	(0.020)
Asset Tangibility [t-1]	-0.163***	-0.078*	-0.181***	-0.125**	-0.147**	-0.125**
	(0.053)	(0.045)	(0.051)	(0.052)	(0.057)	(0.052)
N. Segments [t-1]	0.028***	0.019***	0.018***	0.015***	0.029***	0.015***
	(0.004)	(0.002)	(0.003)	(0.002)	(0.004)	(0.002)
Constant	0.655***	-0.395***	0.368***	-0.182***	0.692***	-0.182***
	(0.102)	(0.056)	(0.077)	(0.061)	(0.103)	(0.061)
Fixed Effects	Firm, IndustryYear	Firm, IndustryYear	Firm, IndustryYear	Firm, IndustryYear	Firm, IndustryYear	Firm, IndustryYear
Adj. R-squared	0.926	0.872	0.889	0.898	0.921	0.898
Observations	28,774	89,783	28,774	89,783	28,774	89,783

Table 9: Panel Regression of Accounting Reporting Complexity based on Number of Agencies

This table presents the results of a panel regression of the Accounting Reporting Complexity (ARC) of 10-K and 10-Q filings on measures of regulatory structure, firm characteristics, and firm and industry-by-year fixed effects. Regulatory fragmentation is also interacted with an indicator variable for the quintile of the number of agencies. Columns 1–2 present ARC based on the entire filing, while Columns 3–4 isolate ARC for the financial tables (denoted "Face"), and columns 5–6 isolate ARC for the financial statement notes (denoted "Notes"). Data variables are defined in Appendix A. Standard errors are presented in parentheses and are clustered at the Fama-French 48 industry level. ***, **, * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Interaction Term: Number of agencies

	ARC		ARC (Face)		ARC (Notes)	
	(1)	(2)	(3)	(4)	(5)	(6)
	10-K	10-Q	10-K	10-Q	10-K	10-Q
Reg. Fragmentation	-0.052***	-0.034***	-0.044***	-0.013	-0.050***	-0.037***
	(0.015)	(0.009)	(0.012)	(0.009)	(0.017)	(0.010)
Reg. Frag X Q2	0.003	-0.011	0.002	-0.014*	0.003	-0.009
	(0.013)	(0.009)	(0.009)	(0.007)	(0.016)	(0.010)
Reg. Frag X Q3	0.009	-0.021*	0.003	-0.001	0.012	-0.024*
	(0.018)	(0.011)	(0.014)	(0.010)	(0.022)	(0.012)
Reg. Frag X Q4	-0.012	-0.029**	-0.012	-0.012	-0.011	-0.031**
	(0.015)	(0.011)	(0.016)	(0.012)	(0.019)	(0.012)
Reg. Frag X Q5	-0.039*	-0.041**	-0.025	-0.020	-0.039	-0.043**
	(0.020)	(0.017)	(0.017)	(0.013)	(0.025)	(0.018)
Interaction Q2	0.007	-0.005	0.002	-0.006	0.009	-0.004
	(0.013)	(0.008)	(0.009)	(0.007)	(0.015)	(0.009)
Interaction Q3	0.033	-0.008	0.021*	-0.002	0.035	-0.008
	(0.023)	(0.013)	(0.012)	(0.010)	(0.026)	(0.015)
Interaction Q4	0.043**	0.005	0.027**	0.014	0.046*	0.003
	(0.021)	(0.012)	(0.012)	(0.011)	(0.024)	(0.013)
Interaction Q5	0.078***	0.020	0.041**	0.021*	0.085***	0.019
	(0.024)	(0.013)	(0.015)	(0.011)	(0.027)	(0.014)
Topic Dispersion	-0.209***	-0.148***	-0.204***	-0.170***	-0.194***	-0.131***
	(0.058)	(0.035)	(0.052)	(0.040)	(0.056)	(0.032)
Reg. Quantity	-0.008	0.017***	0.021***	0.002	-0.014**	0.020***
	(0.006)	(0.006)	(0.006)	(0.007)	(0.006)	(0.006)
Log Sales [t-1]	0.059***	0.043***	0.039***	0.046***	0.061***	0.039***
	(0.017)	(0.009)	(0.013)	(0.011)	(0.017)	(0.008)
Tobin's Q [t-1]	-0.003***	-0.001***	-0.003**	-0.002***	-0.002***	-0.001***
	(0.001)	(0.000)	(0.001)	(0.001)	(0.001)	(0.000)

EBITDA/Assets [t-1]	-0.012	-0.010	-0.013	-0.012	-0.010	-0.008
	(0.010)	(0.007)	(0.010)	(0.008)	(0.010)	(0.007)
Book Leverage [t-1]	0.189***	0.177***	0.166***	0.151***	0.184***	0.172***
	(0.039)	(0.025)	(0.025)	(0.020)	(0.042)	(0.026)
Asset Tangibility [t-1]	-0.159***	-0.077*	-0.179***	-0.125**	-0.143**	-0.058
	(0.052)	(0.045)	(0.050)	(0.052)	(0.055)	(0.043)
N. Segments [t-1]	0.028***	0.019***	0.018***	0.015***	0.028***	0.018***
	(0.004)	(0.002)	(0.003)	(0.002)	(0.004)	(0.002)
Constant	0.637***	-0.393***	0.359***	-0.184***	0.671***	-0.421***
	(0.104)	(0.056)	(0.077)	(0.062)	(0.105)	(0.051)
Fixed Effects	Firm, IndustryYear	Firm, IndustryYear	Firm, IndustryYear	Firm, IndustryYear	Firm, IndustryYear	Firm, IndustryYear
Adj. R-squared	0.926	0.872	0.889	0.898	0.922	0.845
Observations	28,774	89,783	28,774	89,783	28,774	89,783

Table 10: Panel Regression of Measures of Readability and Interaction with Number of Agencies

This table presents the results of a panel regression of the measures of readability for 10-K filings on measures of regulatory structure, firm characteristics, and firm and industry-by-year fixed effects. Regulatory fragmentation is interacted with an indicator variable for the quintile of the number of agencies. Column 1 presents readability based on the Fog Index, while columns 2–5 use the log number of complex words, word count, sentence count, and words per sentence as calculated by SEC Analytics. Data variables are defined in Appendix A. Standard errors are presented in parentheses and are clustered at the Fama-French 48 industry level. ***, **, * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Interaction Term: Number of agencies

	(1) Fog Index	(2) Complex Words	(3) Word Count	(4) Sent. Count	(5) Words/Sent.
Reg. Fragmentation	-0.157***	-0.053***	-0.050***	-0.037***	-0.012***
	(0.031)	(0.007)	(0.006)	(0.006)	(0.002)
Reg. Frag X Q2	0.138***	0.047***	0.047***	0.034***	0.014***
	(0.025)	(0.005)	(0.005)	(0.004)	(0.002)
Reg. Frag X Q3	0.152***	0.067***	0.069***	0.053***	0.016***
	(0.033)	(0.008)	(0.008)	(0.006)	(0.002)
Reg. Frag X Q4	0.204***	0.079***	0.080***	0.059***	0.021***
	(0.039)	(0.009)	(0.008)	(0.006)	(0.003)
Reg. Frag X Q5	0.204***	0.103***	0.103***	0.082***	0.021***
	(0.046)	(0.010)	(0.010)	(0.007)	(0.004)
Interaction Q2	0.325***	0.110***	0.118***	0.081***	0.037***
	(0.030)	(0.007)	(0.006)	(0.005)	(0.002)
Interaction Q3	0.532***	0.173***	0.187***	0.127***	0.060***
	(0.047)	(0.010)	(0.010)	(0.007)	(0.004)
Interaction Q4	0.768***	0.248***	0.268***	0.185***	0.084***
	(0.053)	(0.012)	(0.013)	(0.009)	(0.005)
Interaction Q5	1.029***	0.343***	0.372***	0.262***	0.111***
	(0.082)	(0.017)	(0.018)	(0.012)	(0.007)
Topic Dispersion	-0.040	-0.009	-0.014**	-0.009	-0.005*
	(0.032)	(0.005)	(0.005)	(0.006)	(0.003)
Reg. Quantity	0.066**	0.003	0.004	0.000	0.004**
	(0.028)	(0.004)	(0.004)	(0.003)	(0.002)
Log File Size	0.803***	0.414***	0.422***	0.350***	0.072***
	(0.028)	(0.011)	(0.012)	(0.009)	(0.003)
Log Sales [t-1]	-0.010	0.016***	0.015***	0.017***	-0.002*
	(0.011)	(0.003)	(0.003)	(0.003)	(0.001)
Tobin's Q [t-1]	0.002	-0.001	-0.001*	-0.001*	-0.000

	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)
EBITDA/Assets [t-1]	0.015	-0.012***	-0.014***	-0.012***	-0.001
	(0.014)	(0.004)	(0.003)	(0.003)	(0.001)
Book Leverage [t-1]	-0.046	0.036***	0.046***	0.041***	0.005
	(0.051)	(0.013)	(0.013)	(0.011)	(0.005)
Asset Tangibility [t-1]	0.115	-0.016	-0.010	-0.028*	0.018**
	(0.086)	(0.018)	(0.018)	(0.016)	(0.008)
N. Segments [t-1]	-0.012***	0.006***	0.006***	0.007***	-0.001***
	(0.004)	(0.001)	(0.001)	(0.001)	(0.000)
Constant	9.955***	3.621***	4.844***	2.586***	2.259***
	(0.400)	(0.153)	(0.164)	(0.130)	(0.043)
Fixed Effects	Firm, IndustryYear	Firm, IndustryYear	Firm, IndustryYear	Firm, IndustryYear	Firm, IndustryYear
Adj. R-squared	0.820	0.937	0.925	0.922	0.679
Observations	80,624	80,624	80,624	80,624	80,624

Table 11: **Panel Regression of Log File Size and Interaction with Number of Agencies**

This table presents the results of a panel regression of the log of file size for 10-K filings on measures of regulatory structure, firm characteristics, and firm and industry-by-year fixed effects. Regulatory fragmentation is interacted with an indicator variable for the quintile of the number of agencies. Column 1 presents the full sample, column 2 presents a subsample of firms with assets that did not change more than 20% year-over-year, and column 3 isolates a subsample where firms had the same number of segments as the previous year in the Compustat segments data. Data variables are defined in Appendix A. Standard errors are presented in parentheses and are clustered at the Fama-French 48 industry level. ***, **, * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Interaction Term: Number of agencies

	(1) Full Sample	(2) Limited Growth	(3) Constant Segments
Reg. Fragmentation	-0.093***	-0.109***	-0.092***
	(0.014)	(0.016)	(0.018)
Reg. Frag X Q2	0.059***	0.054***	0.051***
	(0.012)	(0.011)	(0.016)
Reg. Frag X Q3	0.056***	0.057***	0.045***
	(0.010)	(0.011)	(0.012)
Reg. Frag X Q4	0.066***	0.077***	0.060***
	(0.014)	(0.019)	(0.015)
Reg. Frag X Q5	0.098***	0.114***	0.090***
	(0.016)	(0.018)	(0.019)
Interaction Q2	0.108***	0.092***	0.094***
	(0.011)	(0.013)	(0.013)
Interaction Q3	0.183***	0.171***	0.170***
	(0.011)	(0.012)	(0.013)
Interaction Q4	0.242***	0.216***	0.228***
	(0.016)	(0.020)	(0.020)
Interaction Q5	0.382***	0.354***	0.363***
	(0.024)	(0.027)	(0.027)
Topic Dispersion	-0.138***	-0.133***	-0.137***
	(0.015)	(0.016)	(0.018)
Reg. Quantity	0.002	0.001	-0.008
	(0.010)	(0.011)	(0.012)
Log Sales [t-1]	0.060***	0.087***	0.060***
	(0.012)	(0.014)	(0.015)
Tobin's Q [t-1]	0.000	-0.001	0.001
	(0.001)	(0.002)	(0.001)
EBITDA/Assets [t-1]	-0.012	-0.079***	-0.011

	(0.009)	(0.027)	(0.009)
Book Leverage [t-1]	-0.017	-0.006	-0.025
	(0.022)	(0.034)	(0.026)
Asset Tangibility [t-1]	-0.103**	-0.204***	-0.077*
	(0.046)	(0.070)	(0.045)
N. Segments [t-1]	0.017***	0.016***	0.024***
	(0.002)	(0.002)	(0.003)
Constant	14.380***	14.357***	14.437***
	(0.065)	(0.083)	(0.076)
Fixed Effects	Firm, IndustryYear	Firm, IndustryYear	Firm, IndustryYear
Adj. R-squared	0.908	0.911	0.906
Observations	80,745	54,376	61,134