Does regulating information create value in capital markets?*

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Abstract

The SEC regulates and standardizes information production in capital markets through financial reporting standards. On average, new standards increase aggregate market value by 0.93%. To investigate the mechanism, we construct a firm-level measure of ex ante sensitivity to each regulation and find that the information content of subsequent disclosures is higher for sensitive firms. Increased information content comes from negative news, consistent with regulation constraining discretionary disclosure. When voting to implement new standards, regulators condition on the expected change in valuation and disagreement among market participants. Overall, information regulation improves capital allocation by reducing asymmetric information in capital markets.

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1 Introduction

The Securities Exchange Act of 1934 introduced the U.S. Securities and Exchange Commission (SEC) to protect investors, maintain fair, orderly, and efficient markets, and facilitate capital formation. As part of this mission, the SEC standardizes, regulates, and enforces the dissemination of corporate information by publicly-listed companies. Financial statements are an integral component of the regulated information set, from which earnings is the summary measure of periodic economic performance.[1] As shown in Figure 1, 5.4 percentage points of the cross-sectional variation in annual equity returns can be attributed to SEC-mandated quarterly earnings announcements, on average, suggesting that investors value the information conveyed in this measure of economic performance.

For public companies, earnings must summarize the net economic benefits of millions of transactions, so standardizing the treatment of classes of transactions can significantly affect the quantification of earnings. To the extent that investors respond to earnings announcements, incremental regulation that alters transaction classifications may significantly impact perceived economic performance. Since 1973, the SEC has delegated financial statement regulation to the Financial Accounting Standards Board, which creates new standards as the corporate landscape evolves and financial innovations are introduced (e.g., securitization, leases, stock options). Indeed, Arthur Levitt, former chairman of the SEC, stated in 1997, that "high quality

[1] FASB Statement of Financial Accounting Concepts No. 1 states: "Information about enterprise earnings and its components measured by accrual accounting generally provides a better indication of enterprise performance than does information about current cash receipts and payments."

accounting standards … improve liquidity [and] reduce capital costs."[2] In this paper, we study the capital market consequences of information regulation and the operational mechanism underlying these consequences. Further, we investigate the political economy of information regulation and evaluate the regulator's objectives and process.

We introduce a novel dataset of 171 FASB accounting standards and investigate the effects of these regulatory events on capital allocation and information dissemination in financial markets. Accounting standards are discrete changes in the aggregation technology that generates key performance measures, such as earnings. First, we collect relevant dates for each standard in order to evaluate the capital market consequences of information regulation. Second, we use textual analysis to find the number of direct mentions of each regulation in corporate disclosures, including those that happen before the regulation actually becomes effective. These corporate mentions allow us to exploit firm heterogeneity in sensitivity to each accounting standard. Third, we collect data on the political economy determinants of regulation in this setting. For each issued standard, we collect (i) the number of formal comment letters submitted to the SEC by market participants, (ii) the margin of victory in the FASB board member vote to issue the standard, (iii) the regulatory delay between conception and formal issuance of the standard, and (iv) the number of other standards being simultaneously drafted and processed around regulatory event dates.

[2] Remarks by Arthur Levitt at the Inter-American Development Bank on September 29, 1997. Also cited by Admati and Pfleiderer (2000) and Easley and O'Hara (2004).

We make three contributions to the literature that studies regulation and information flows in financial markets. First, we provide evidence that information regulation increases market values, on average, suggesting that incremental information regulation reduces asymmetric information between firms and investors. This is consistent with the theoretical literature that shows that financial markets rely on information to achieve optimal capital allocation (Akerlof 1970; Leland and Pyle 1977; Myers and Majluf 1984; Admati 1985; Diamond 1985; Diamond and Verrecchia 1991; Song and Thakor 2006; Hermalin and Weisbach 1998, 2012).[3] Second, we find evidence that the regulator is sensitive to these effects – dissenting votes are more likely for controversial standards and those viewed relatively poorly by the market at the initial announcement. This evidence contrasts with classical theories of regulatory capture (Stigler 1971; Peltzman 1976; Laffont and Tirole 1991). Third, firms sensitive to regulation experience larger market reactions to post-regulation earnings announcements. This increase in the content of information flows is driven by negative information (Verrecchia 1983; Dye 1985), suggesting that regulation solves the commitment problem faced by firms with agency conflicts (Jensen and Meckling 1976; Admati and Pfleiderer 2000; Boot and Thakor 2001). Furthermore, standardization, one component of regulation, can reduce the costs of acquiring and processing information for investors. By ensuring comparability, standardization improves cross-firm

[3] Through disagreement about asset values, asymmetric information prevents efficient contracting and capital allocation (Diamond 1985). Moreover, with heterogeneous investors, disclosure, through facilitating coordination, may produce positive governance externalities (Song and Thakor 2006; Hermalin and Weisbach 1998, 2012).

capital allocation and lowers the cost of capital (Verrecchia 1982; Diamond and Verrecchia 1991; Easley and O'Hara 2004).

To assess the valuation and capital allocation consequences of regulation, we focus our attention on two key dates in the regulation process on which the probability of new regulation increases. On the first of these dates, the FASB issues an exposure draft, which provides some details about a conceived standard. Although market participants have not yet had formal opportunity to provide feedback on the draft and the FASB board members have yet to vote to issue the standard, the exposure draft represents a significant increase in the probability that a related standard will be issued. The second key date in the standard setting process is the issuance date, which represents the public announcement that the FASB board members have voted in favor of issuing the standard. Issuance resolves uncertainty about the final set of regulatory changes and the timing of implementation (i.e., the effective date).

Across standards, we find that exposure draft and issuance dates are met with statistically significant and economically large positive announcement returns, which suggests that regulation increases equity capital allocation to regulated firms (i.e., U.S. publicly-listed corporations). Cumulative aggregate returns across exposure draft and issuance dates are 0.93% for the average standard. For context, such an increase in market capitalization of the U.S. public equity market in 2015 would correspond to $232.5 billion, or approximately the market value of the 15th largest publicly-listed company in the U.S. This aggregate increase in equity market capitalization reflects changes in governance rather than stock selection because

selection, as an idiosyncratic determinant of firm value, should have no effect on aggregate prices.

The valuation consequences of regulation extend to the cross-section of firms. We find that sensitive firms have lower market reactions to standards than insensitive firms. Among sensitive firms, however, those below the 75th percentile of sensitivity still experience positive reactions on net. These results belie two effects. First, for both sensitive and insensitive firms, valuations increase due to the commitment to disclose negative information in earnings. Second, investors anticipate negative revelations for sensitive firms, which reduces the valuations of sensitive firms relative to insensitive firms.

Market participants, including investors, auditors, and corporations, provide feedback to the FASB by submitting comment letters if their views do not align with exposure drafts. Using a regression discontinuity design to isolate contentious votes, we find that FASB board members are more likely to oppose regulation if the exposure draft was met with a negative market response or if market participants submitted many comment letters.[4] This evidence suggests that the regulator's objective incorporates agreement and valuation by market participants.

Finally, we investigate the mechanism through which equity value is created by information regulation. Consistent with asymmetric information as a primary concern of regulators, we find that regulation increases the information content of earnings, on average, and that this effect is larger for contentious standards. Furthermore, using corporate mentions

[4] Our tests mirror other work that has studied the ex ante sensitivity to financial regulation, including Hochberg, Sapienza, and Vissing-Jorgensen (2009).

as our measure of ex ante sensitivity, we find that regulation-sensitive firms experience the largest increase in the information content of earnings. This increase in information content is driven by changes in the propensity to disclose negative news, consistent with regulation constraining discretionary disclosure (Verrecchia 1983; Dye 1985). Furthermore, this evidence suggests that asymmetric information is an important component of the problem of regulating financial information (Kurlat and Veldkamp 2015). These findings have the added benefit of eliminating alternative explanations for the aggregate market reaction to new standards based on time variation in the information content of earnings announcements. Such concerns might arise if, for example, new standards follow periods of fraud.

Because we comprehensively address the standardization and regulation of information in financial markets, we make contributions to the literatures that study the design and adoption of financial markets regulation, information acquisition and processing in a market setting, and information aggregation. The regulatory events we study reduce information acquisition and processing costs for investors, supporting theories that link costly information acquisition to asset prices, capital allocation, and welfare (Verrecchia 1982; Admati 1985; Diamond and Verrecchia 1991; Admati and Pfleiderer 2000). Interpreted through the lens of Diamond (1985), our evidence suggests that investors are better off because incremental disclosure regulation increases public information.

More generally, our evidence speaks to the central role of public information in welfare and efficiency in coordination games. Myatt and Wallace (2012) show that increased coordination incentives lead agents to endogenously acquire information that is more public in

nature. Indeed, when agents endogenously acquire information, the signals that receive the most attention are those that are most available, even if they have poor underlying accuracy. The literature has looked extensively at the conditions for which improved public information unambiguously improves welfare (Morris and Shin 2002; Angeletos and Pavan 2007; Chahrour 2014; Ui and Yoshizawa 2015). Iachan and Nenov (2015) show that not only is public information desirable, but also that the quality of information matters. When payoffs in bad states are more sensitive to fundamentals than payoffs in good states, the quality of public information is paramount to financial stability.

2 Institutional setting

The SEC has overall responsibility for regulation of US capital markets, though it has traditionally delegated the administration of accounting rules to the accounting profession. Since 1973, the body in charge has been the Financial Accounting Standards Board (FASB), a private organization headquartered in Norwalk, Connecticut, itself overseen by the Financial Accounting Foundation (FAF). The common set of accounting principles and rules, promulgated by FASB, which companies must follow in preparing their financial statements, is known as Generally Accepted Accounting Principles (GAAP). During our sample period, the main updates to GAAP were called Statements of Financial Accounting Standards (SFAS).

In setting these standards, FASB's stated objective is to "foster financial reporting by nongovernmental entities that provides decision-useful information to investors and other users

of financial reports."[5] In fact, in line with the theoretical rationales for public disclosure and comparability in disclosure discussed above, FASB's Rules of Procedure specifically state that "decisions about the allocation of resources rely heavily on credible, concise, and understandable financial information." Further, FASB explicitly recognizes that some decision makers cannot themselves easily compel firms to provide the information they need directly and so must rely on public financial reports. An important principle underlying the FASB's work is a cost-benefit analysis of proposed standards so that the cost of preparing, providing, and auditing the information is explicitly taken into consideration.

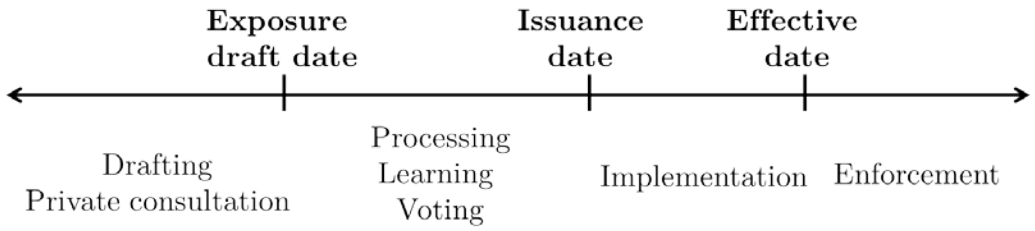
The board of FASB consists of seven members appointed to five-year terms by the FAF, which can be extended for one additional term.[6] Because members must be independent, they must sever ties with their previous organizations before joining the Board. The current membership of the FASB has a diverse background; the majority of the members have previous experience at one of the big public audit firms, but there is also one representative of the academic accounting community, one member with experience on the company financial reporting side and another member with experience on the investment side with past positions as a money manager and as an equity analyst. Members are assisted by a technical staff of more than sixty people.

As can be seen in the timeline below, the standard setting process involves a series of steps adopted under the authority of the FAF. The board identifies a topic which it believes

[5] http://bit.ly/2ctk7TK

[6] In rare cases, such as in 2009, because of vacancies which were not immediately filled, FASB has only had five members.

new standards could improve, and then conducts research on the specific issues of relevance. These issues are deliberated at a public meeting. FASB then releases an exposure draft, which outlines the views of the board on the accounting issues at hand, in order to solicit feedback from the public on the proposed new standard. Further public hearings are held, and the board considers comment letters which it receives from stakeholders, such as investors, auditors, and public companies. The board then makes a decision on the form and substance of the new accounting standard, and the individual members vote on whether the standard should be issued. If the vote passes, the standard is released publicly, and becomes part of GAAP.



Timeline: Standard Setting Process

Figure 2 shows the number of standards issued by FASB in each year from 1973-2010, for a total of 171 Statements of Financial Accounting Standards. There is considerable intertemporal variation, with a peak of 19 standards issued in 1981. The greater number of standards in the 1970s and 1980s likely reflects the change in institutional structure of US accounting rules, as well as the possibility that a less developed system of measurement for financial reporting yields more opportunities for improvement. We end our sample in 2010 because the structure of accounting rules was changed in that year. The new and current model is the culmination of a project to codify GAAP, which has resulted in the Accounting Standards

Codification. The Codification is updated by the issuance of Accounting Standards Updates, following a very similar process to that described above. However, while the standards that we study are the key building blocks of the Codification, the actual standards themselves (mentions of which we collect, as described below) are now technically superseded.

3 Data and sample selection

We collect data on standards from two main sources: the text of the standards themselves, and related documents, available through FASB, and mentions of standards in firms' 10-Ks (annual reports). In some tests, we are able to include information on all 171 standards issued by FASB. Because of missing data concerning some aspects of the standards and the availability of machine parsable 10-Ks, some of our tests only cover the period 1995-2010.

3.1 Dates

As described in Section 2, FASB takes several steps in the process of implementing a standard. After deliberation and public consultation to determine pressing financial reporting issues, the formal process begins with the drafting, by the members of the FASB, of an "exposure draft" for a proposed standard. This exposure draft is disseminated to public firms as well as the SEC for comments. We refer to the date on which this document is made public as the exposure draft date. After a period of time, usually longer than a year, the FASB receives

input regarding the proposed standard, and revises the draft until a completed version is decided upon. The standard is then made public, and becomes part of GAAP. We refer to the date on which the standard is formally issued as the issuance date. Standards must be announced before they can be implemented by firms and their auditors. The date the standard becomes binding for subsequent financial reports is the effective date.

Using the text from the standards, we collect the dates of associated exposure drafts and the effective date of the standard. Several standards have multiple exposure drafts. When this is the case, we consider the first exposure draft as the first event related to the standard. Because the FASB standards themselves do not specify a day on which they were issued, only a month, we collect issuance dates from FASB press releases regarding the issuance of each standard.

The amount of time taken by the drafting and implementation processes varies considerably by standard. Figure 3 shows a histogram of the elapsed time between the exposure draft and issuance of the standard. This time difference is a function of the amount of time spent deliberating on and revising the standard. The mean is 610 days with considerable variation across standards.

Figure 4 shows the time between issuance of the standard and the effective date. This difference reflects the actual implementation of the standard. Longer such delays would be likely for more complex standards, giving firms and auditors time to study and interpret the standard, as well as making the necessary adjustments to internal accounting systems. The mean time to effective is more than two years, suggesting that these changes to accounting rules are viewed by standard setters as having nontrivial effects on firms' disclosure environments.

3.2 Comment letters

During the time between first exposure draft and issuing the standard, the FASB allows for upwards of a year for the public to voice concerns over the proposed standard. During this time (between exposure draft date and issuance date), various interested parties, such as auditors, investors and public companies, send comment letters so the FASB. We treat the number of comment letters as a measure of disagreement regarding the standard. We hand collect the number of comment letters from the narrative discussion in the text of each standard.

Figure 5 shows the distribution of comment letters across standards. The big outlier in this distribution (which is excluded from this figure) is the number of comment letters submitted in relation to SFAS 123R, which was 14,239. The apparently contentious issue raised in this standard was the expensing of stock option compensation.[7]

3.3 Votes

After the FASB disseminates an exposure draft, but before issuing the standard, members of the FASB must vote on whether to adopt the new standard. We treat the number of *nay* votes as a measure of discord among FASB members, indicating potential contention

[7] Prior to the standard, details related to option compensation were required to be disclosed in the footnotes to the financial statements but did not affect net income.

over the net benefit of the proposed standard. We hand collect final votes from the text of each standard.

Figure 6 shows a histogram of dissenting votes. Almost half of all votes are unanimous; nonetheless, in more than ten percent of cases, the margin of adoption is a single vote. Given the diversity of backgrounds and interests represented among the FASB members, nay votes may reflect differences in perspective, such as that of the firm versus that of investors, or simply an overall negative view of the standard.

3.4 Mentions

A firm has a variety of ways to communicate information in a 10-K outside of financials. Management discussion and analysis is an opportune place to produce a narrative regarding the performance of a firm. However, in describing the factors affecting that performance, explanations for various financial statement or other outcomes are used and often required in footnotes and other items. If a firm's reported performance is affected by a particular standard, the firm will potentially mention that standard in footnotes or even management discussion and analysis. We take the position that the more times a firm mentions a standard in its 10-K, the more sensitive that firm is to the standard. We collect standard mentions (e.g., "SFAS 123R") from firm 10-Ks. We find that 22.2% of firms mention the average standard between the exposure draft and effective date, and that, conditional on mentioning the standard during this period, the average number of mentions per firm is 13.7.

Figure 7 shows ex ante mentions of standards – these are mentions that occur in 10-Ks between the exposure draft date and the effective date of the standard. Note that this means that these mentions all occur in filings for which the standard does not directly affect the reported numbers. Some standards have as many as 80,000 mentions during this period. Figure 8 shows total mentions of accounting standards by year, which are on the order of hundreds of thousands of individual mentions, ex ante mentions by year, and the probability that firms mention a particular standard in each year.

4 Regulation and capital allocation

To evaluate whether FASB standards are value-increasing or not, we study market reactions on two crucial dates in the standard setting process. First, we investigate the exposure draft date, which follows a period of private consultation with select market participants and drafting by FASB members. Due to the rarity of FASB exposure drafts that do not lead to issued standards, investors can be nearly certain that a standard approximately reflecting the content of the exposure draft will, indeed, be issued.

Second, we study the issuance date, which follows an interim period of feedback by market participants and eventual voting by the FASB members. Upon issuance, any remaining uncertainty about the issuance and implementation of the standard is resolved, including when the SEC will begin to enforce the standard.

Table 2 presents equal-weighted and value-weighted cumulative announcement returns for exposure draft and issuance dates for a variety of event periods. We choose event periods that begin one month in advance of the event date and end one month after the event date to investigate anticipation and under-reaction. Whether we aggregate cross-sectional returns using equal weights or market capitalization weights, we find statistically and economically significant evidence of positive announcement returns on exposure draft and issuance dates. Our findings suggest that investors underreact to information contained in the exposure draft, which is consistent with both investor learning and complexity. We also find evidence of information leakage in the month leading up to the issuance date, which is consistent with information about FASB member voting and comment letters preempting the announcement regarding issuance.

As discussed above, Tables 1 and 2 show that while market reactions to exposure drafts and the issuance of standards vary considerably across firms and standards, the average reaction is positive, which suggest that new accounting standards are value-increasing. In Table 3, we investigate firm-level heterogeneity in exposure draft and issuance returns based on standard-specific sensitivity. The sensitivity to each standard is measured by mentions of that standard by the firm in 10-Ks filed between the exposure draft and the issuance of the standard. This analysis explores a second cross-firm capital reallocation channel through which standards impact value because it holds fixed the aggregate market reaction to each standard. In Panel A, we investigate exposure draft returns. As the exposure draft precedes corporate mentions, these tests examine the extent to which investors anticipate firm-level sensitivity to standards. In

column (1) we show that a 1% increase in a firm's mentions of a standard is associated with a 56 basis points lower return for that firm at the time of the exposure draft. Firms that caution their investors more about a standard's effect—those that are more sensitive to the standard—are those that received a lower market return at the time of the exposure draft to that standard. In column (2) of Panel A, we use standard-level fixed effects, and still obtain a statistically significant result of a 1% increase in mentions being associated with a nine basis points lower return, meaning that this effect is not due to fixed cross-standard differences, such as the importance of the relevant reporting issue. The inclusion of standard fixed effects eliminates time series variation in returns and identifies the effect of cross-firm capital reallocation on market values.

In column (3) we also include firm fixed effects to control for a firm's average reactions to exposure drafts and achieve qualitatively similar results as in column (2). In column (4) we further control for industry by standard fixed effects and get quantitatively similar estimates, suggesting that the cross-firm capital reallocation channel operates within as well as across industries. Further, industry by standard fixed effects eliminate alternative explanations for our findings relating to differential, industry-specific market reactions to each standard. We use these estimates to quantify the cost of capital and cross-firm capital reallocation channels through which standards affect market values. Among sensitive firms, those below the 75th percentile of sensitivity still experience positive reactions on net.[8] That both groups of firms

[8] The cutoff sensitivity such that the two effects cancel out is approximately 17 standard mentions, which exceeds the 75th percentile of the distribution of sensitivity for firms with any mentions.

experience positive returns and that sensitive firms experience less positive returns belies the two channels. First, for both sensitive and insensitive firms, valuations increase due to improved disclosure. Second, investors anticipate negative revelations for sensitive firms and reallocate capital away from sensitive firms, which reduces their valuations in relative terms.

Panel B of Table 3 studies the relationship between a firm's sensitivity to a standard and that firm's return at the standard's issuance. While in column (1) we see that a 1% increase in mentions leads to an 18 basis point lower return at issuance, this effect goes away in columns (2)-(4) when we add standard, standard and firm, and firm and industry-standard fixed effects. This result shows that the market likely anticipates the potential consequences of the standard and how these should vary across firms given the available information. The magnitude of the effects is also lower than for the exposure draft, indicating that by the time of issuance, the market has learned about both the likelihood of the standard being adopted, and the standard's effects on the information aggregation technology.

5 Assessing the standard setting process

The results above reveal that the market reacts positively to standards. While the stated goals of accounting standard setters are public knowledge, we wish to gain insight into the actual goals of the members of FASB. We tie outcomes of standards to observed voting to investigate if regulators consider capital allocation and feedback from market participants when considering standards, and look at concurrent activities by the FASB to determine whether or

not the capital allocation effects of standards is affected by the mechanics of the standard setting process.

Table 4 presents evidence on the cross-sectional determinants of the number of dissenting votes at the standard level. In principle, standards with more dissenting votes are standards that some members of FASB do not like. Column (1) shows that dissenting votes are less likely when the aggregate market response to the relevant exposure draft was more positive. Specifically, a one percentage point increase in the market reaction to the exposure draft is associated with .089 fewer dissenting votes; alternatively, a one standard deviation increase in the market reaction yields 16% fewer dissenting votes. This suggests that board members are influenced by the capital market view of the standard.

Close votes are significantly more likely for more controversial standards, as measured by either the volume of comment letters or mentions of the standard by firms. These findings are confirmed when allowing each of the three factors to affect dissenting votes at the same time, despite the fact that this requires a much smaller sample of 44 standards, after conditioning on the availability of firm mentions. Panel B of Table 4 shows that we find similar results on the determinants of vote margin when using a regression discontinuity design. This setting focuses particularly on small vote margins (of one or two votes) and includes a linear control for the actual vote margin.

We can also use this framework to assess the mechanics of the standard setting process by investigating the quality of standards drafted or issued when the regulator is busy relative to times when it is not. Figure 9 shows the distribution of the number of standards being

simultaneously drafted or implemented at any given time. Several countervailing factors could be at play here. First, busy standard setters may do a worse job of writing new standards because their attention is split across many tasks. Alternatively, it could be the case that working on multiple standards could help build expertise or that multiple standards simultaneously drafted or implemented could interact in complementary ways. Time-varying demand for standards by market participants could also lead to higher per-standard benefits if standard setters are time constrained and choose to prioritize the most needed standards. The results in Table 5 show that the latter effects seem to dominate. Standards with exposure drafts released during times when many other exposure drafts were being drafted lead to economically and statistically significantly higher exposure draft returns.[9] Overall, these results suggest that standard setters are not overworked and actually produce better new standards when they are busy.

6 Regulation and the information content of earnings

In this section, we investigate the channel through which value is created by information regulation. Table 6 demonstrates the way in which the aggregation technology has changed for firms that are more sensitive to the standard, following the effective date of the standard. We use a difference-in-differences design with the intensity of firm sensitivity to each standard (mentions) as the treatment. In Panel A we look at the information content of earnings through

[9] In untabulated tests, we find that standards that are issued around the same time as many other standards are associated with higher market reactions to issuance. However, we find no obvious cross effects of drafting on implementation or vice versa.

the absolute market reaction to earnings announcements surrounding the regulatory event, in a two year window on either side of the event.

In column (1), we find that following the effective date of a standard, firms that are 1% more sensitive to the standard (as measured by mentions) have a 21 basis point increase in absolute market reaction (information content) to earnings announcements.[10] This design employs controls and standard-level fixed effects. Controls, X_{it}, include the natural log of total assets, market-to-book ratio, and leverage. In column (2) we add year fixed effects, and still find a three basis point increase for every 1% increase in sensitivity. If we add firm and industry-year fixed effects—as we do in columns (3) and (4)—our results remain qualitatively the same. While increased sensitivity to a standard leads to increased information content of earnings following implementation of the standard while controlling for industry-year variation as well as idiosyncratic firm or standard contributions to information content, one might be concerned that firms individually interact with standards differently. We incorporate firm by standard fixed effects in addition to the previous fixed effects in column (5) and show that our results hold, preserving within-firm-standard effects of the sensitivity to a particular standard.

In Panel B we investigate the source of this increased information content of earnings, and we find that it is predominantly due to negative news. With similar fixed effects regressions as in Panel A, we investigate the signed market reactions to earnings announcements and find results of the same magnitude, indicating that firms that are sensitive to a standard must more

[10] If our previous results were driven by uncertainty resolution around key dates in the standard setting process, we would not expect the information content of subsequent earnings announcements to change systematically.

readily and accurately report negative news to markets after the standard becomes effective. This is in keeping with the notion that just as firms have plenty of avenues and incentives to disclose good news, they may prefer to withhold bad news.

Table 7 investigates the absolute market reaction to earnings announcements in a difference in difference design for each standard, but using an alternative proxy for firm sensitivity to a standard—the firm's absolute exposure draft return. In Panel A, column (1), we include controls (i.e., the natural log of total assets, market-to-book ratio, and leverage) and standard-level fixed effects and find that a 1% higher absolute exposure draft return for a firm leads to a 58 basis point increase in absolute earnings announcement returns after the effective date of the standard. Firms that are more sensitive to the standard see an increase in the information content of their earnings following implementation of the standard. In column (2), we see that while controlling for standard and year fixed effects, a 1% increase in absolute exposure draft returns for a firm lead to 20 basis point higher absolute returns for the two earnings announcements following implementation of the standard. In columns (3)-(5), we include firm, industry-year, and finally firm-standard fixed effects and get roughly an eight basis point increase in absolute earnings announcement returns for a 1% increase in absolute exposure draft returns.

In Panel B, we again investigate signed returns, with a similar set of specifications. We find that the increase in information content of earnings for high absolute exposure draft return firms is primarily due to increased negative market reactions, as evidenced by negative coefficients on the interaction term. Column (1) shows a 1% increase in absolute exposure draft

returns leads to a 62 basis point lower return surrounding earnings announcements. Column (2) shows a 50 basis point effect, while Columns (3)-(5)—with increasingly restrictive fixed effects—still show roughly 40 basis point lower earnings announcement returns. As in Panel B, Table 6, these results are consistent with the notion that standards increase the disclosure of negative information.

We are also interested in the relationship between the standard setting process and the incremental information content of earnings to understand whether regulators are concerned with information content when considering regulatory changes. Table 8 reports triple difference estimates of the effects of new accounting standards on absolute market reactions to earnings announcements, conditional on the characteristics of the standard setting process. Note that we can include at most standard and firm fixed effects due to the treatment applying to the cross-section of standards rather than to the cross-section of firms, as in Tables 6 and 7.

The determinants of standard setting that we investigate are comment letters and the issuance delay or time to issuance. The number of comment letters is the total number of comment letters received by the FASB regarding each standard following the exposure draft. The issuance delay is the time between exposure draft and implementation of the standard. We perform firm level analysis, clustering standard errors at the event and firm level. In column (1) we use standard fixed effects and show that a 1% increase in comment letters for a particular standard leads to a three basis point increase in the absolute market reaction to a firm's earnings announcement. If we add firm fixed effects, this result remains qualitatively and

quantitatively similar in column (2), at four basis points. These effects show that more contentious standards may actually lead to greater information content of earnings.

In column (3), we see that a 1% increase in the time to issuance decreases information content by 54 basis points, while the effect is a 52 basis points reduction in column (4) when we add firm fixed effects to the standard fixed effects. Standards with high implementation costs are less beneficial. However, consistent with our earlier inferences using market reactions, busy standard setters appear to do a good job of producing standards which increase the information content of earnings.

Panel B examines signed returns. We find that in column (1) and (2), with standard or standard and firm fixed effects, that a 1% increase in comment letters leads to a two basis point decrease in returns, meaning that the increase in information content is primarily due to negative information not being accurately represented. In columns (3) and (4), we investigate the signed return effects for issuance delay, and find that a 1% increase in time to issuance leads to a six or eight basis point, respectively, lower return. This result points to the decreased information content of earnings also being due to lower returns. The same channel applies to standards written by busy regulators.

6.1 Identification

The leading identification concern with our inference that accounting standards increase the information content of earnings announcements is that unobservable characteristics of

standards may be correlated with the observable characteristics we study. For example, unobservable macroeconomic or financial characteristics may create uncertainty over the demand for the information a standard might affect. Such uncertainty might increase issuance delays or discord among market participants.

In our tests that investigate the political economy determinants of the information content of earnings, these are valid concerns. However, alternative explanations must simultaneously explain why standards with many comment letters and corporate mentions, busy regulators, as well as large exposure draft announcement returns increase the information content of earnings announcements and decrease the signed market reaction to earnings announcements.

Our tests that exploit within firm variation in ex ante standard-sensitivity should further alleviate concerns that unobservable characteristics of standards could explain our findings. This is precisely because these tests exploit within standard variation. For the same standard, firms with greater ex ante sensitivity experience larger increases in the information content of earnings announcements and decrease the signed market reaction to earnings announcements.

A number of other empirical concerns might revolve around the robustness of our findings. At a minimum, all of our results are robust to mean or median splits on explanatory variables, and to using an indicator variable to identify firms that make at least one mention of a given standard. Similarly, although our results on the information content of earnings use two year event windows, they are quantitatively similar for three, four, and five year event windows.

For the difference-in-differences analyses of market responses to earnings announcements, it is important to check the assumption of parallel trends. We do so in Figure 12 for firms with high vs. low mentions of standards and firms with high vs. low market reactions to exposure drafts, standards with high vs. low numbers of comment letters, those with some vs. no dissenting votes, and those with long vs. short delays between exposure draft and issuance. In each case, we find that the sensitivity of returns to earnings announcements changes similarly over time for both groups in the three years prior to the effective date of the standard, and only diverge after the standard becomes effective. Indeed, the statistical test of parallel trends is not rejected for any of these variables at any conventional significance level. This is particularly striking since market participants are aware of the standard well in advance of the effective date; however, quarterly earnings themselves are not affected until the standard becomes effective.

One might also be concerned about early adoption of standards, since such voluntary adoption would naturally lead to more ex ante mentions. While early adoption is typically not allowed, we check whether it is nonetheless affecting our results, by checking for robustness after dropping mentions in the year prior to the effective date. These mentions could reflect actual adoption of the standard and so be mechanical rather than an informative disclosure about the firm's sensitivity to the standard. Dropping such mentions does not qualitatively change any of our results. In fact, it is unlikely even in theory that voluntary adoption could explain our results since firms with more ex ante mentions experience lower returns around the issuance of

the standard. Since we would expect that firms would only voluntarily adopt early if they thought the standard was value-increasing, this effect should attenuate our results.

7 Conclusion

Using a novel dataset of the political economy determinants of information regulation and ex ante firm heterogeneity in regulation sensitivity, we provide evidence on the economic benefits of information regulation. Information regulation is value-increasing, on average, but sensitive firms experience smaller returns, reflecting two distinct channels. Whereas regulation increases aggregate market valuation by reducing asymmetric information, it also forces the revelation of negative information about sensitive firms, generating capital reallocation from sensitive to insensitive firms. FASB board member voting behavior suggests that regulators place weight on interim feedback by market participants as well as initial signals about the value creation and capital allocation effects of proposed regulation.

By investigating firm-level changes in the information content of subsequent disclosure, we link the determinants of regulatory value creation to information dissemination by affected firms. Sensitive firms experience larger increases in the information content of disclosure, and this increase is driven by the dissemination of negative information. Together, these results suggest that regulation improves capital allocation by reducing asymmetric information in capital markets.

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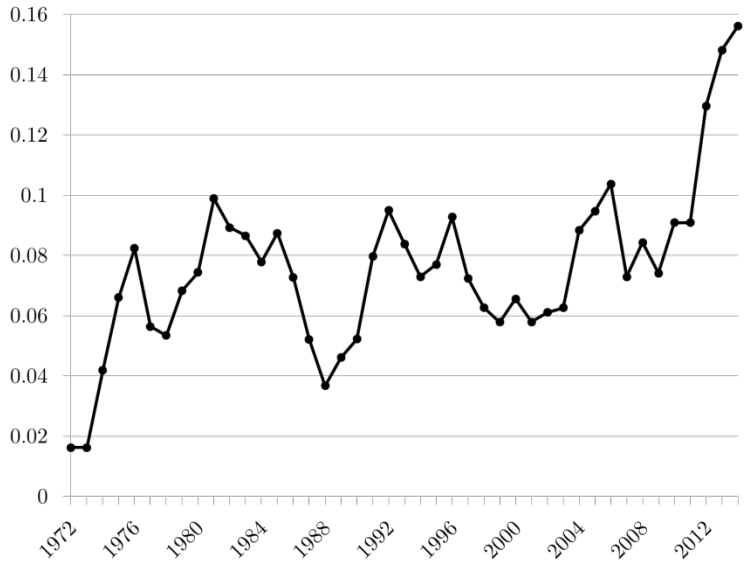


Figure 1. Annual Returns Explained by Cumulative Earnings Announcement Returns

This figure presents a time series plot of the three year moving average of the R^2 of annual cross-sectional regressions of annual stock returns on cumulative earnings announcement returns. Cumulative earnings announcement returns are calculated using three day windows around earnings announcements. In this time series, the mean R^2 is 5.4%, but is increasing through the sample period and reaches a maximum of 15.8% in 2014.

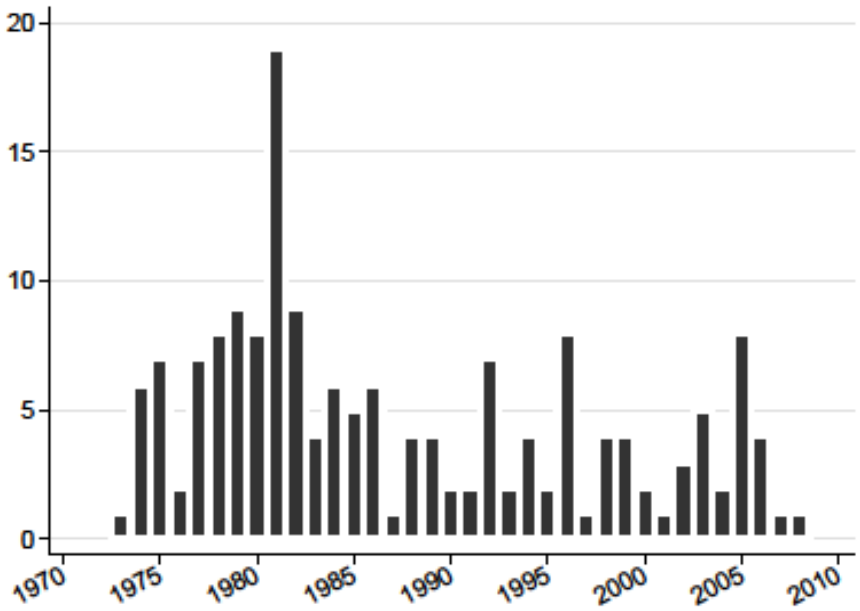


Figure 2. Time Series of Regulatory Event Frequency

This figure plots the annual frequency of FASB exposure draft dates between the inception of the FASB in 1973 and the FASB's final exposure draft in 2008.

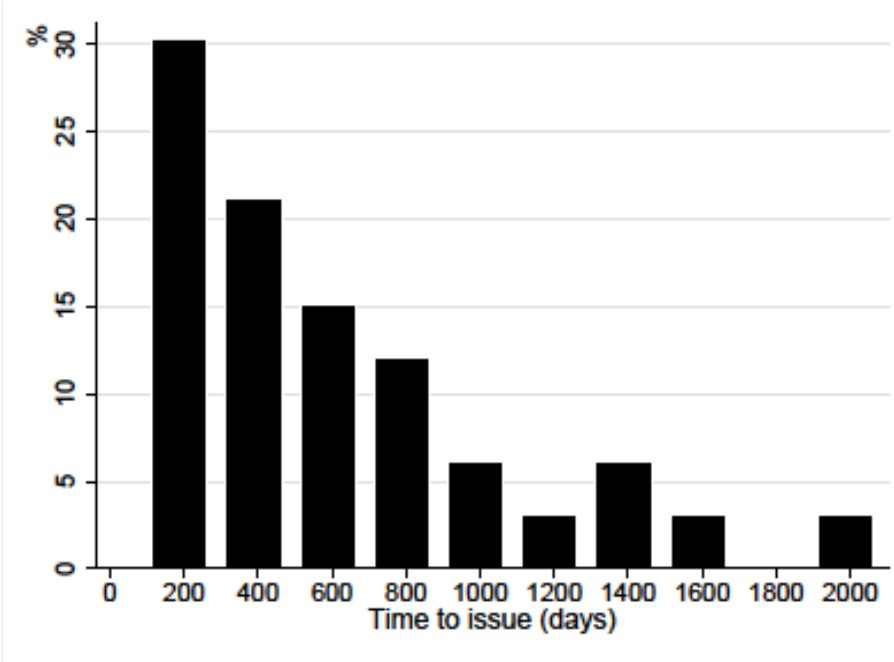


Figure 3. Regulatory Issuance Delay

This figure presents a histogram of the delay between the exposure draft and issuance dates for each of the 171 FASB standards issued since 1973.

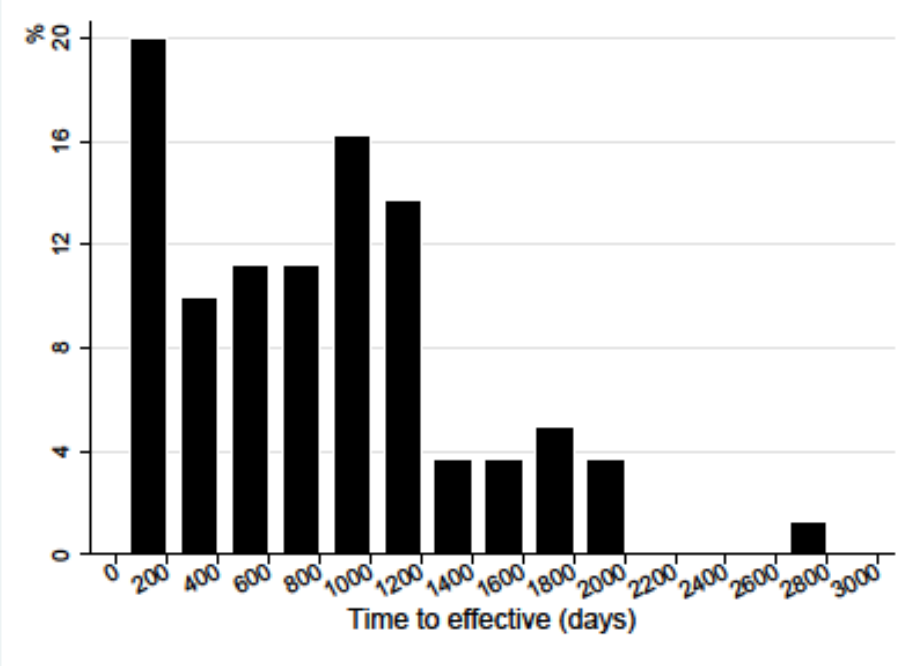


Figure 4. Regulatory Effective Delay

This figure presents a histogram of the delay between the exposure draft and effective dates for each of the 171 FASB standards issued since 1973.

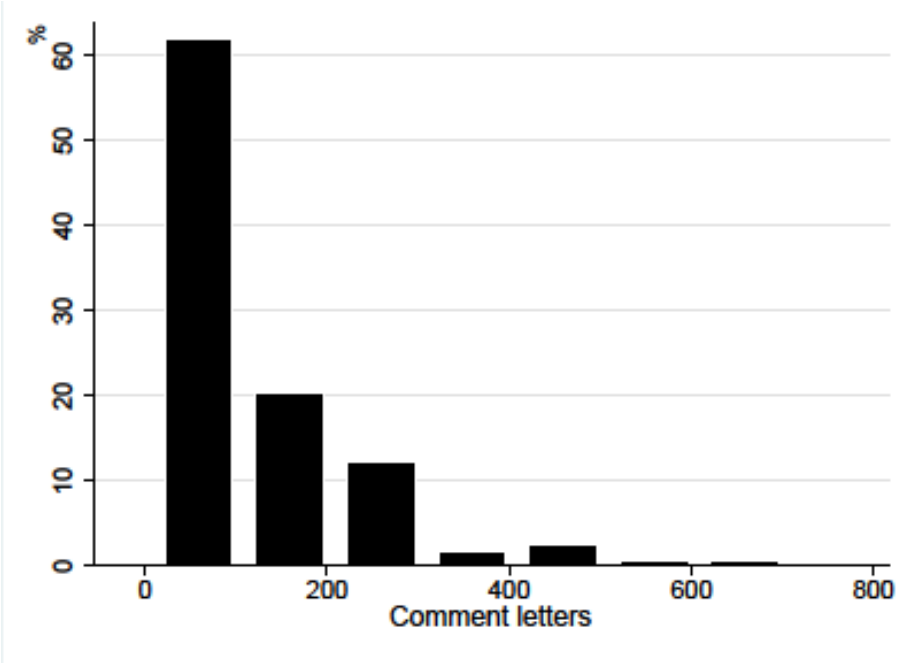


Figure 5. Comment letters

This figure presents a histogram of the number of comment letters submitted by market participants for each of the 171 FASB standards issued since 1973, excluding SFAS 123R, which had over 14,000 comment letters.

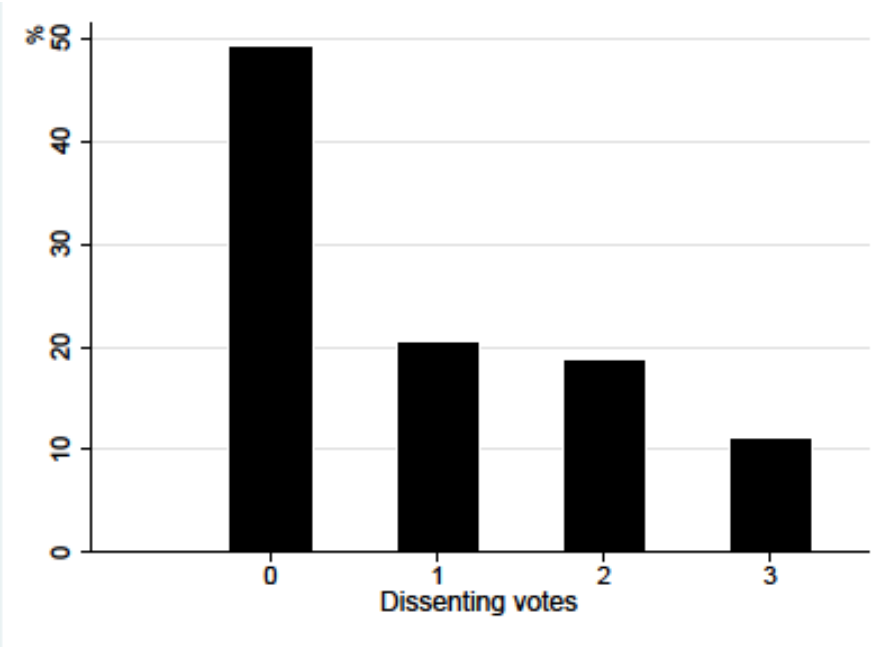


Figure 6. Dissenting Votes by FASB Board Members

This figure presents a histogram of the number of dissenting votes by FASB board members for each of the 171 FASB standards issued since 1973.

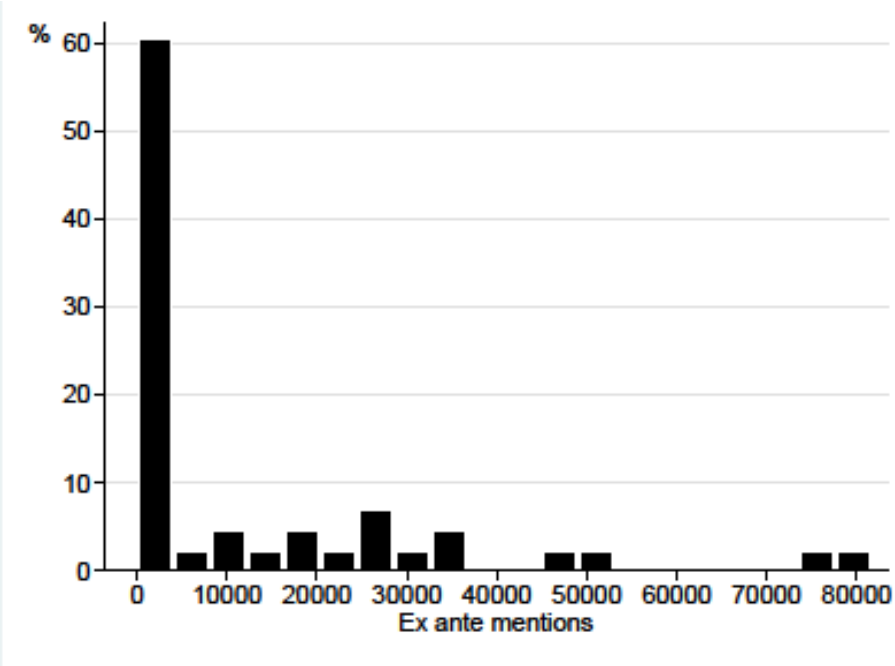
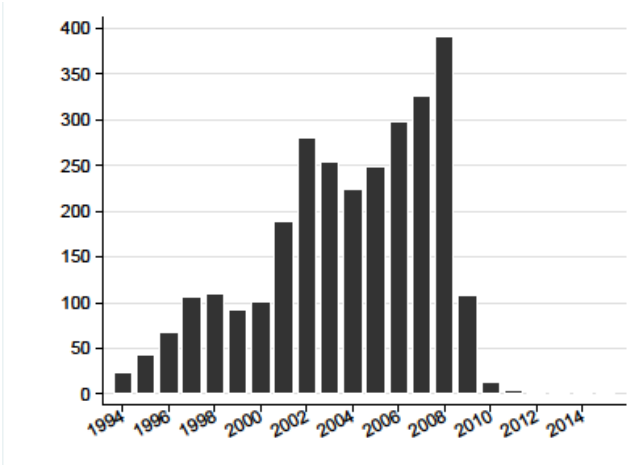
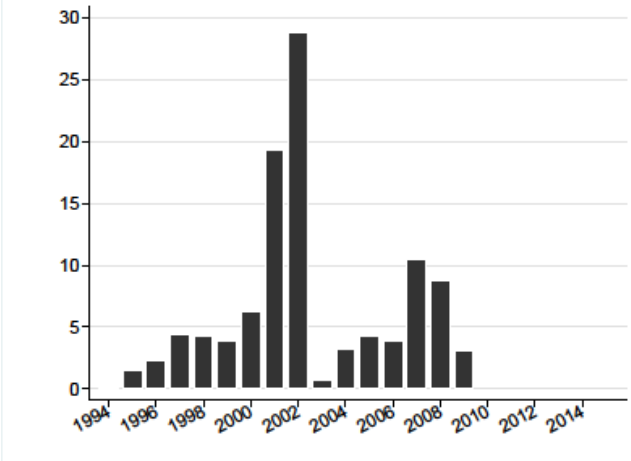


Figure 7. Mentions of Standards before Effective Date

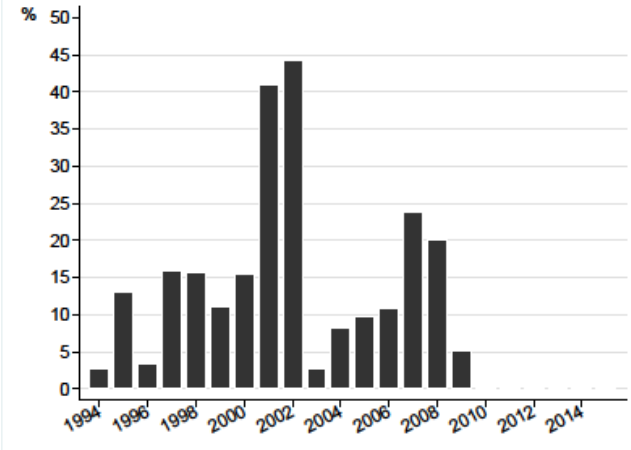
This figure presents a histogram of firms' mentions of FASB standards between the exposure draft date and the effective date for each of the FASB standards issued since 1994. Data restrictions prevent collection of mentions before 1994.



Panel A. Total Mentions of Past Accounting Standards (*thousands*)



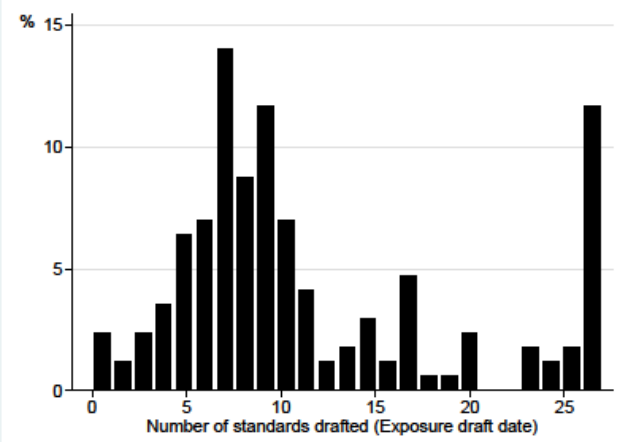
Panel B. Ex Ante Mentions of New Standards (*thousands*)



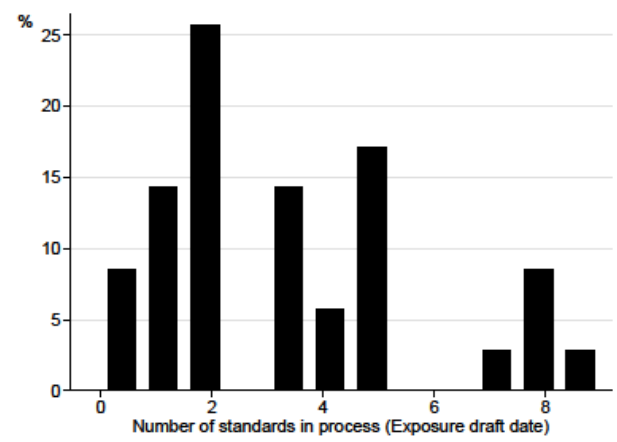
Panel C. Probability that a Firm Mentions a Standard

Figure 8. Corporate Mentions of Standards

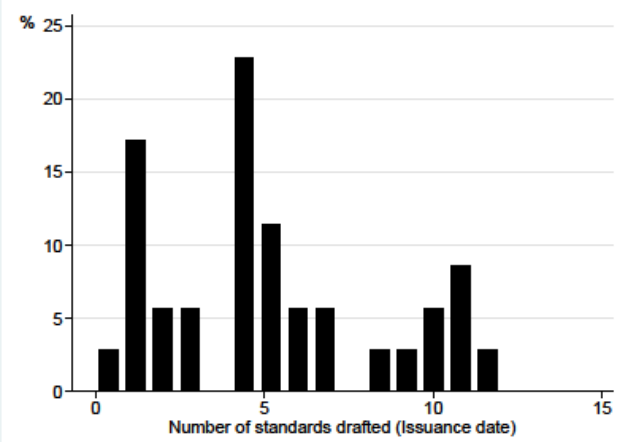
Panels A and B show the frequency (in *thousands*) of corporate mentions and pre-effective date corporate mentions for any FASB standard over time. Panel C shows the probability that a corporation mentions at least one FASB standard before its effective date, in each year.



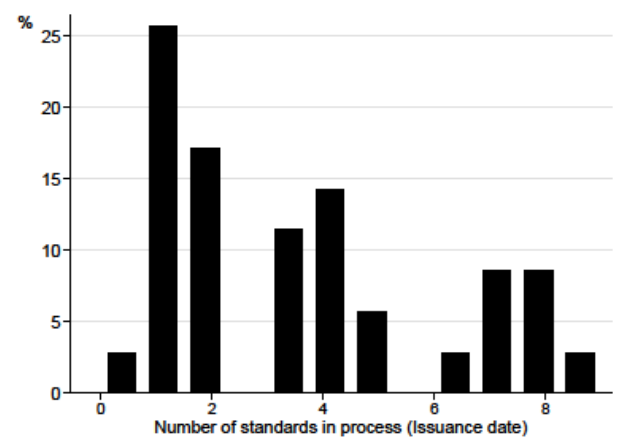
Panel A. Busy Drafting at Exposure Draft



Panel B. Busy Processing at Exposure Draft



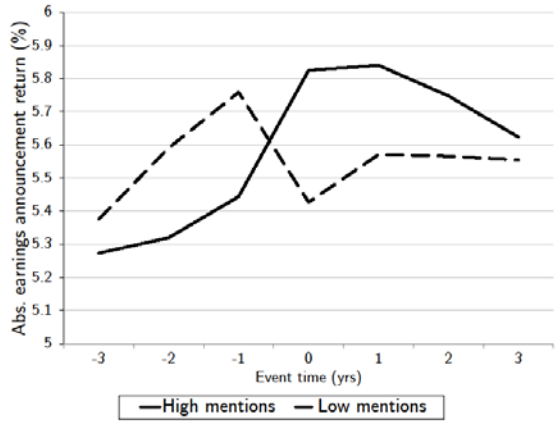
Panel C. Busy Drafting at Issuance



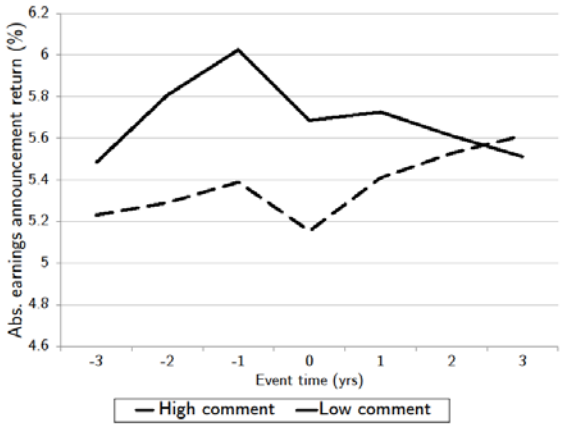
Panel D. Busy Processing at Issuance

Figure 9. Regulation Drafting and Processing

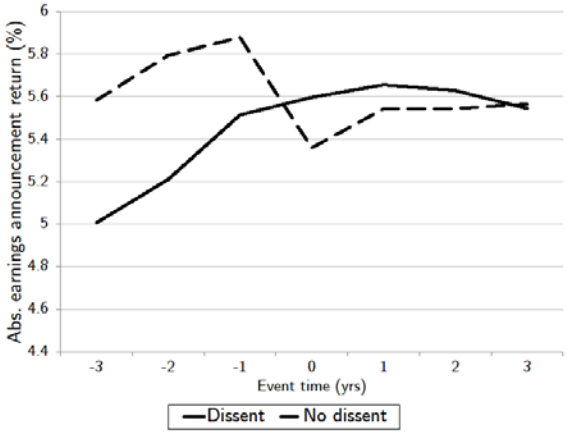
This figure presents the distribution of the number of standards drafted within one year of the given standard's exposure draft date (Panel A), the number of standards in process (i.e., between exposure draft and issuance) on the exposure draft date (Panel B), the number of standards drafted within one year of the given standard's issuance date (Panel C), and the number of standards in process on the issuance date (Panel D). Due to data limitations, Panel A includes all 171 FASB standards between 1973 and 2008, but Panels B, C, and D include only 35 standards.



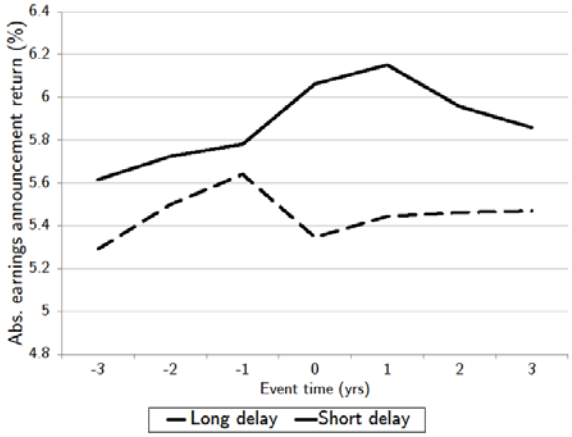
Panel A. Pre-effective date mentions



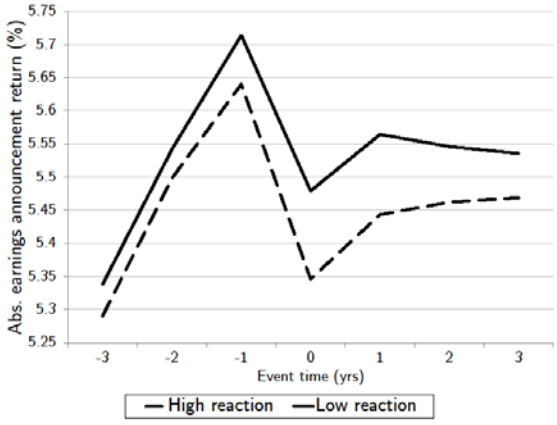
Panel B. Comment letters



Panel C. Dissenting votes



Panel D. Regulatory delay



Panel E. Exposure draft date market reaction

Figure 12. Parallel Trends Across Firm and Regulation Characteristics

This figure shows parallel trends plots of absolute three-day cumulative announcement returns around earnings announcements before and after new accounting standards become effective. Groups are constructed using mean splits based on firm characteristics, including pre-effective date mentions of standards (Panel A) and market reactions on the exposure draft date (Panel E), and standard characteristics, including comment letters (Panel B), dissenting votes by FASB board members (Panel C), and the delay between exposure draft and issuance dates (Panel D).

Table 1. Summary Statistics

This table presents summary statistics of the key variables of interest, including characteristics of the 171 FASB standards issued between 1973 and 2008 as well as the firms affected by this regulation.

	Mean	SD	P25	Median	P75
Standard characteristics:					
Dissenting votes	0.918	1.063	0	1	2
Abstentions	0.029	0.169	0	0	0
Ex ante Mentions	4403.24	16568.08	2	17	475
Comment letters	228.756	1112.893	40	80	168
Time to issue (days)	610.970	464.967	231	467	887
Time to effective (days)	791.938	565.213	300.5	748	1104
Exposure draft Return$^{[-1,1]}$	0.300%	1.609%	-0.448%	0.080%	1.114%
Issue Return$^{[-1,1]}$	0.625%	1.881%	-0.471%	0.402%	1.142%
Firm characteristics:					
Total mentions	329.188	309.335	104	280	470
Annual mentions	0.114	1.050	0	0	0
Standard mentions	1.925	9.804	0	0	0
Total assets ($mm)	4,753.281	44,936.54	72.931	313.308	1,353.399
Market value ($mm)	3,795.892	16,981.370	106.404	436.383	1,825.267

Table 2. Aggregate Market Reaction to New Accounting Standards

This table presents equal-weighted and value-weighted cumulative announcement returns around the exposure draft and issuance of FASB standards issued between 1973 and 2008. We observe exposure draft date returns for 168 standards and issuance date returns for 35 standards. Standard errors are robust to heteroscedasticity and presented in parentheses. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

	Exposure draft		*Issue*	
	EW	*VW*	*EW*	*VW*
	(1)	(2)	(3)	(4)
Anticipation:				
[-30,1]	1.013**	0.995**	3.261**	2.450*
	(0.501)	(0.478)	(1.376)	(1.395)
[-10,1]	0.092	0.201	1.308**	1.006*
	(0.266)	(0.260)	(0.609)	(0.567)
[-5,1]	0.164	0.198	1.127***	0.981**
	(0.220)	(0.223)	(0.392)	(0.463)
Event period:				
[-1,1]	0.300**	0.313**	0.625**	0.576
	(0.124)	(0.128)	(0.308)	(0.401)
[-2,2]	0.585***	0.603***	0.748**	0.691*
	(0.149)	(0.155)	(0.375)	(0.419)
Under-reaction:				
[-1,5]	0.779***	0.800***	0.873*	0.574
	(0.201)	(0.199)	(0.512)	(0.529)
[-1,10]	1.268***	1.291***	1.338*	0.909
	(0.304)	(0.298)	(0.715)	(0.705)
[-1,30]	2.526***	2.661***	2.233*	1.443
	(0.644)	(0.622)	(1.273)	(1.244)

Table 3. Regulatory Sensitivity and Firm-level Market Reactions to Standards

This table presents regressions of three-day cumulative announcement returns around exposure draft (Panel A) and issuance (Panel B) dates for FASB standards on ln*Mentions*, the natural log of the number of mentions of the given standard in firm *i*'s corporate filings between the exposure draft and issuance dates. We include increasingly restrictive sets of standard, firm, and industry-by-standard fixed effects to account for differences in aggregate market reactions, time-invariant firm sensitivity to FASB standards, and cross-sectional variation in sensitivity to each standard across industries. Industry refers to two-digit SICs. Standard errors are robust to heteroscedasticity, clustered by FASB standard, and reported in parentheses. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Panel A. Regulatory Sensitivity and Exposure Draft Market Reactions

Dependent variable: *Exposure draft Return*$^{[-1,1]}$				
	(1)	(2)	(3)	(4)
ln*Mentions*	-0.559***	-0.087**	-0.105***	-0.102***
	(0.047)	(0.036)	(0.036)	(0.037)
Fixed Effects:				
Standard		X	X	
Firm			X	X
Industry x Standard				X
R^2	0.0026	0.0906	0.1587	0.1877
Obs.	363,486			

Panel B. Regulatory Sensitivity and Issuance Market Reactions

Dependent variable: *Issuance Return*$^{[-1,1]}$				
	(1)	(2)	(3)	(4)
ln*Mentions*	-0.177***	0.053	0.015	0.016
	(0.020)	(0.046)	(0.046)	(0.047)
Fixed Effects:				
Standard		X	X	
Firm			X	X
Industry x Standard				X
R^2	0.0012	0.0703	0.1639	0.1972
Obs.	215,333			

Table 4. Cross-sectional Determinants of Dissenting Votes and Vote Margins

Panel A of this table presents regressions of *Dissenting votes*, the number of votes against the passage of the given standard, on ln*Comments*, the natural log of the number of comment letters filed in association with the given standard, ln*Mentions*, the natural log of the number of mentions of the given standard in corporate filings between the exposure draft and issuance dates, and *Exposure draft Return*$^{[-1,1]}$, the three-day cumulative announcement return around the exposure draft date. Panel B presents a regression discontinuity test of differences in ln*Comments*, ln*Mentions*, and *Exposure draft Return*$^{[-1,1]}$ for close votes. Columns (1), (3), and (5) use a global first order polynomial control function (first order is chosen by Akaike and Bayesian information criteria), and columns (2), (4), and (6) isolate local variation with a bandwidth restriction that limits the sample to standards with vote margins weakly less than 5. The sample is restricted in tests that use ln*Mentions* due to data availability limitations. In all specifications, we include year fixed effects to account for variation in FASB board membership over time. Standard errors are robust to heteroscedasticity and reported in parentheses. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Panel A. Cross-sectional Determinants of Dissenting Votes

Dependent variable: *Dissenting votes*				
	(1)	(2)	(3)	(4)
Exposure draft Return$^{[-1,1]}$	-0.089*			-0.082*
	(0.051)			(0.046)
ln*Comments*		0.295***		0.245***
		(0.078)		(0.067)
ln*Mentions*			0.048**	0.051**
			(0.023)	(0.020)
Fixed Effects:				
Year	X	X	X	X
R^2	0.3133	0.3791	0.3188	0.3816
Obs.	162	162	44	44

Panel B. Regression Discontinuity Design Based on Vote Margin

Dependent variable:	*Exposure draft Return*$^{[-1,1]}$		ln*Mentions*		ln*Comments*	
	(1)	(2)	(3)	(4)	(5)	(6)
Vote margin close	-0.419*	-0.337**	3.171*	2.118*	1.302***	1.171***
	(0.230)	(0.167)	(1.902)	(1.267)	(0.271)	(0.431)
Polynomial order	1	0	1	0	1	0
Bandwidth	Global	5	Global	7	Global	5
Fixed Effects						
Year	X	X	X	X	X	X
R^2	0.4087	0.4520	0.3808	0.4567	0.4933	0.5706
Obs.	162	55	44	20	162	55

Table 5. Busy Regulators and Aggregate Market Reactions to Standards

This table presents regressions of three-day cumulative announcement returns around the exposure draft and issuance dates for FASB standards on $\ln BusyProcessing^{ExposureDraft}$ and $\ln BusyDrafting^{ExposureDraft}$. Columns (1)-(3) present regressions of exposure draft cumulative announcement returns on $\ln BusyProcessing^{ExposureDraft}$ and $\ln BusyDrafting^{ExposureDraft}$. $\ln BusyProcessing^{ExposureDraft}$ is defined as the natural log of the number of standards in process (i.e., between exposure draft and issuance dates) at the time of the given standard's exposure draft. $\ln BusyDrafting^{ExposureDraft}$ is defined as the natural log of the number of standards drafted within one year of the given standard's exposure draft. Standard errors are robust to heteroscedasticity and reported in parentheses. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Dependent variable:	*Exposure draft Return*$^{[-1,1]}$		
	(1)	(2)	(3)
$\ln BusyProcessing^{ExposureDraft}$	-0.592		-0.214
	(0.813)		(0.843)
$\ln BusyDrafting^{ExposureDraft}$		0.474**	2.254***
		(0.211)	(0.769)
R^2	0.0305	0.0070	0.2012
Obs.	162	33	33

Table 6. Ex Ante Regulation Sensitivity and the Information Content of Regulatory Disclosure

Panel A of this table presents difference-in-differences estimates of the effects of new accounting standards on the information content of earnings, which we define as the absolute value of the three-day cumulative announcement return around annual earnings announcements, for firms that are sensitive and insensitive to the regulation, which we measure using ln*Mentions*.. Panel B replaces absolute cumulative returns around annual earnings announcements for their signed counterpart. The sample includes observations at the regulation-firm-year level for years within a two year window around each regulatory event. ln*Mentions* is defined as the natural log of the number of mentions of the given standard in firm *i*'s corporate filings between the exposure draft and issuance dates of each regulatory event. We include increasingly restrictive fixed effects to isolate variation within and across firms, standards, and time, and we incorporate cross-fixed effects for industry-by-year to account for industry-specific sensitivity to each standard. Standard errors are robust to heteroscedasticity, clustered by regulatory event and firm, and reported in parentheses. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Panel A. Absolute Market Reaction to Earnings Announcements

Dependent variable: abs($Return^{[-1,1]}$)					
	(1)	(2)	(3)	(4)	(5)
ln*Mentions* × *Post*	0.212***	0.034**	0.036**	0.041***	0.044***
	(0.057)	(0.017)	(0.016)	(0.016)	(0.016)
X_{it}	X	X	X	X	X
Fixed Effects:					
Standard	X	X	X	X	
Firm			X	X	
Year		X	X		X
Industry × *Year*				X	X
Firm × *Standard*					X
R^2	0.0135	0.0240	0.1584	0.1685	0.2368
Obs.	5,120,804				

Panel B. Signed Market Reaction to Earnings Announcements

Dependent variable: $Return^{[-1,1]}$					
	(1)	(2)	(3)	(4)	(5)
ln*Mentions* × *Post*	-0.035*	-0.038*	-0.037*	-0.040*	-0.044**
	(0.021)	(0.022)	(0.022)	(0.022)	(0.022)
X_{it}	X	X	X	X	X
Fixed Effects:					
Standard	X	X	X	X	
Firm			X	X	
Year		X	X		X
Industry × *Year*				X	X
Firm × *Standard*					X
R^2	0.0005	0.0022	0.0364	0.0424	0.0945
Obs.	5,120,804				

Table 7. Capital Reallocation and the Information Content of Regulatory Disclosure

Panel A of this table presents difference-in-differences estimates of the effects of new accounting standards on the information content of earnings, which we define as the absolute value of the three-day cumulative announcement return around annual earnings announcements, for firms whose stock prices change the most around the exposure draft related to the new accounting standard. Panel B replaces absolute cumulative returns around annual earnings announcements for their signed counterpart. The sample includes observations at the regulation-firm-year level for years within a two year window around each regulatory event. abs($Return^{Exposuredraft}$) is defined as firm *i*'s the absolute value of the three-day cumulative announcement return around the exposure draft date of each regulatory event. We include increasingly restrictive fixed effects to isolate variation within and across firms, standards, and time, and we incorporate cross-fixed effects for industry-by-year to account for industry-specific sensitivity to each standard. Standard errors are robust to heteroscedasticity, clustered by regulatory event and firm, and reported in parentheses. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Panel A. Absolute Market Reaction to Earnings Announcements

Dependent variable: abs($Return^{[-1,1]}$)					
	(1)	(2)	(3)	(4)	(5)
abs($Return^{Exposuredraft}$) × *Post*	0.584***	0.205**	0.087*	0.074*	0.079*
	(0.104)	(0.103)	(0.051)	(0.044)	(0.044)
X_{it}	X	X	X	X	X
Fixed Effects:					
Standard	X	X	X	X	
Firm			X	X	
Year		X	X		X
Industry × *Year*				X	X
Firm × *Standard*					X
R^2	0.0135	0.0264	0.1589	0.1691	0.2371
Obs.	5,083,087				

Panel B. Signed Market Reaction to Earnings Announcements

Dependent variable: $Return^{[-1,1]}$					
	(1)	(2)	(3)	(4)	(5)
abs($Return^{Exposuredraft}$) × *Post*	-0.617***	-0.500**	-0.387***	-0.390***	-0.404***
	(0.131)	(0.131)	(0.130)	(0.129)	(0.135)
X_{it}	X	X	X	X	X
Fixed Effects:					
Standard	X	X	X	X	
Firm			X	X	
Year		X	X		X
Industry × *Year*				X	X
Firm × *Standard*					X
R^2	0.0005	0.0022	0.0362	0.0423	0.0939
Obs.	5,080,170				

Table 8. Determinants of Regulation and the Information Content of Regulatory Disclosure

Panel A of this table presents difference-in-differences estimates of the effects of new accounting standards on the information content of earnings, which we define as the absolute value of the three-day cumulative announcement return around annual earnings announcements, for standards that vary in $\ln Comments$, the natural log of the number of comment letters for a given standard and $\ln TimetoIssue$, the natural log of the delay between exposure draft date and issuance date for each standard. $\ln BusyDrafting^{ExposureDraft}$ is defined as the natural log of the number of standards drafted within one year of the given standard's exposure draft. $\ln BusyProcessing^{Issuance}$ is defined as the natural log of the number of standards in process (i.e., between exposure draft and issuance dates) at the time of the given standard's issuance. Panel B replaces absolute cumulative returns around annual earnings announcements for their signed counterpart. We include increasingly restrictive fixed effects to isolate variation within and across firms and standards. Issuance date is censored for a subset of standards, so the sample size is smaller in columns (3) and (4). Standard errors are robust to heteroscedasticity, clustered by regulatory event and firm, and reported in parentheses. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Panel A. Absolute Market Reaction to Earnings Announcements

Dependent variable: abs($Return^{[-1,1]}$)								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
$\ln Comments \times Post$	0.034*	0.038**						
	(0.018)	(0.016)						
$\ln TimetoIssue \times Post$			-0.535***	-0.522***				
			(0.126)	(0.117)				
$\ln BusyDrafting^{ExposureDraft} \times Post$					0.097***	0.091***		
					(0.032)	(0.029)		
$\ln BusyProcessing^{Issuance} \times Post$							0.103***	0.967***
							(0.036)	(0.033)
X_{it}	X	X	X	X	X	X	X	X
Fixed Effects:								
Standard	X	X	X	X	X	X	X	X
Firm		X		X		X		X
R^2	0.0136	0.1483	0.0079	0.1502	0.0142	0.1489	0.0085	0.1507
Obs.	5,055,158	5,055,158	2,487,789	2,487,789	5,055,158	5,055,158	2,487,789	2,487,789

Panel B. Signed Market Reaction to Earnings Announcements

Dependent variable: $Return^{[-1,1]}$								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
$\ln Comments \times Post$	-0.018**	-0.023***						
	(0.007)	(0.007)						
$\ln TimetoIssue \times Post$			-0.062*	-0.080**				
			(0.036)	(0.031)				
$\ln BusyDrafting^{ExposureDraft} \times Post$					-0.115**	-0.128**		
					(0.049)	(0.047)		
$\ln BusyProcessing^{Issuance} \times Post$							-0.099**	-0.088*
							(0.050)	(0.048)
X_{it}	X	X	X	X	X	X	X	X
Fixed Effects:								
Standard	X	X	X	X	X	X	X	X
Firm		X		X		X		X
R^2	0.0005	0.0348	0.0004	0.0446	0.0005	0.0346	0.0004	0.0446
Obs.	5,055,158	5,055,158	2,487,789	2,487,789	5,055,158	5,055,158	2,487,789	2,487,789