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Fair value accounting standards and securities litigation

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ABSTRACT

We examine the effect of fair value standards on firms' litigation risk. The discretion required by fair value allows plaintiffs to "second guess" managers' judgments, potentially increasing litigation risk. Alternatively, the complexity of fair value may decrease litigation risk if it's more difficult to demonstrate scienter. Our evidence suggests firms that rely more on fair value standards are relatively less likely to be sued. We find no evidence of a relation between fair value and the risk of misstatements or fraud, but do find evidence of a slight increase in firms' litigation risk via an increase in volatility. However, the primary effect of fair value standards in reducing litigation risk dominates the volatility effect. Finally, we find average litigation rates increase after the passage of new standards, but less so for fair value standards. On balance, our evidence suggests fair value is a relatively low litigation risk area in GAAP.

1. Introduction

We examine how fair value accounting standards affect firms' securities litigation risk. This issue is important for two reasons. First, fair value accounting has become increasingly prevalent in GAAP and extends far beyond the assets for which fair value measurement is arguably objective (e.g., an investment portfolio of actively traded stocks). For example, GAAP requires fair value estimates to assess asset impairment, value derivatives, measure items held for sale, and value intangibles from acquisitions (ASC 360; ASC 815; ASC 815). Second, although most prior work focuses on the relevance of fair value items for stock prices or returns (see Landsman, 2007), accounting information has uses beyond equity valuation, such as contracting, regulation, and litigation (Holthausen and Watts, 2001; Kothari et al., 2010). Indeed, litigation is a major monitoring mechanism that holds managers accountable to investors (Kim and Skinner, 2012). Given the growth in fair value accounting and the role litigation plays in a world where ownership is separate from control, understanding the effect of fair value accounting on litigation risk is of first-order importance.

A major concern raised in the academic literature is that fair value accounting may *increase* litigation risk (e.g., Bell and Griffin, 2012; Christensen et al., 2012; Laux and Leuz, 2009; Liang and Riedl, 2014; Pickerd and Piercey, 2021). The idea is that fair value accounting involves uncertain and subjective estimates, which increases litigation risk by allowing shareholders to claim managers manipulated the financial statements to inflate stock prices. For example, plaintiffs can "second guess" managers' judgments over valuation models and allege managers ignored unfavorable information. However, it is also possible that fair value accounting could *decrease* litigation risk. In an accounting-related securities class action, plaintiffs must show managers acted with "scienter" – meaning plaintiffs must prove managers *intentionally* misstated the financial statements. It can be difficult to show scienter for subjective fair value judgments because managers could argue they made an honest mistake if their judgment later proved incorrect (Leone, 2009). This is particularly true when an asset or liability is not actively traded in an observable market and the valuation is thus more speculative.

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Moreover, fair value accounting often involves complex transactions (such as derivatives, intangibles, and securitizations), and the standards themselves are often complex, with a large amount of implementation guidance. Donelson et al. (2012) find that transaction complexity and increased guidance lead to *lower* litigation risk because it is easier for defendants to argue that any misstatement was an innocent mistake. This further suggests that fair value accounting may decrease litigation risk.

The possibility of fair value accounting decreasing litigation risk is particularly interesting because securities litigation plays an important monitoring role in disciplining misreporting (Donelson et al., 2021; La Porta et al., 2006). If fair value accounting results in lower litigation risk, the growth of fair value accounting in GAAP may make it more difficult for shareholders to hold managers accountable for issuing misleading financial statements.

To examine this issue, we construct a sample of all GAAP-related securities class actions filed from 1996 to 2017. We begin by examining the overall relation between a firm's reliance on fair value standards and the likelihood of litigation. We use FASB's list of fair value standards in SFAS 157 to identify fair value standards. Then, we use the Folsom et al. (2017) relative impact score to capture the extent to which each firm relies on each fair value standard in each year. Folsom et al.'s (2017) relative impact score, for example, would deem a firm as relying more on SFAS 142 when it mentions "goodwill" more frequently in its 10-K than other firms. Finally, we create our firm-year fair value reliance measure by summing Folsom et al.'s (2017) relative impact score for each fair value standard. Using this measure, we find a significant negative association between reliance on fair value standards and litigation risk (while controlling for numerous litigation determinants). These results provide initial evidence consistent with fair value standards being a relatively low litigation risk area of GAAP.

We next consider the channels through which fair value reliance could affect litigation risk. We posit the primary channel is the effect of subjective fair value measurement on litigation risk in a particular area (i.e., fair value accounting affects litigation over the items being fair valued). For example, the increased subjectivity introduced by complex fair value measurement may make it difficult for plaintiffs to argue the alleged fraud was intentional and not simply an honest mistake made in a complex area of GAAP. This suggests *lower* litigation risk.

However, there are three other channels whereby fair value accounting could *increase* litigation risk. The first of these channels is higher earnings volatility. Remeasuring items to fair value can increase earnings volatility (Hodder et al., 2006), which could, in turn, increase stock return volatility. Greater stock return volatility increases the likelihood of large stock price drops and the size of potential damages, attracting attention from plaintiffs' lawyers (Alexander, 1990; Coffee Jr, 2006; Francis et al., 1994; Packer and Todd, 2009) who could allege GAAP violations after the fact—such as revenue manipulation or an inventory overstatement. With this volatility effect, the items being fair valued and the alleged GAAP violations need not coincide. The other two channels whereby fair value accounting could increase litigation risk are through a higher rate of (i) accounting misstatements or (ii) fraud. If fair value accounting enables such low-quality reporting or opportunistic behavior, then that may increase litigation risk since misreporting and fraud are strong triggers of securities class actions (Donelson et al., 2012).

To understand whether fair value accounting could increase litigation risk through these three channels, we first test the association between fair value accounting and earnings volatility, the likelihood of restatements, and the likelihood of Accounting and Auditing Enforcement Releases (AAERs) from the SEC. We find no evidence that fair value reliance is associated with a higher likelihood of material "Big R" restatements or AAERs, suggesting that fair value accounting does not enable low-quality or opportunistic financial reporting. These results are consistent with Hodder and Sheneman (2022), who find little evidence that fair value measurements play a large role in the opportunistic reporting of security impairments, presumably due to investor and auditor scrutiny as well as ample managerial discretion in other areas of GAAP. Our lack of significant findings could also be attributable to detection issues. Fair value measurement often involves changes in estimates, which generally do not trigger restatements, and their complexity makes it more difficult for the SEC to allege intent, just as it does for private litigants.

We do, however, find that fair value reliance is significantly positively associated with earnings volatility. Given this finding, we next conduct a path analysis to explore the magnitude of this channel in increasing litigation risk. In this analysis, reliance on fair value standards has a primary path to litigation risk, along with a path through higher earnings volatility and the likelihood of a large stock price drop. Consistent with expectations, we find a positive and significant effect of fair value accounting through volatility on litigation risk. However, the economic magnitude is small: a one standard deviation increase in fair value reliance increases the threat of litigation via this channel by only 0.005 percentage points (or 0.25% of the mean). In contrast, we find a negative and significant main link between fair value reliance and litigation risk, and the magnitude of this primary effect (reduction of 0.97 percentage points) dominates the volatility effect. Overall, the path analysis reinforces the idea that fair value accounting is a relatively low litigation risk area of GAAP.

We perform two additional tests to supplement our findings. First, our primary tests speak to *relative* litigation risk – that of fair value accounting relative to other areas of GAAP. However, the passage of new fair value standards may increase *absolute* litigation risk for firms even if fair value remains a relatively low litigation risk area of GAAP. Thus, we examine the incidence of GAAP-related litigation for firms around the adoption of new fair value and non-fair value standards. We find that the passage of a new accounting standard is associated with a higher incidence of GAAP-related litigation over the three years after passage. However, this effect is much smaller for new fair value standards than for new non-fair value standards. For policy makers, these results suggest that any new accounting standard might increase (perhaps, in the short term) litigation risk, but fair value standards have a smaller effect than non-fair value standards. This is relevant when policy makers weigh alternative options for measurement requirements.

Second, to ensure our empirical methodology of measuring fair value reliance is not driving our results, we calculate two alternative measures of fair value reliance. One measure captures the extent to which each firm's balance sheet is exposed to fair value accounting. The other measure adjusts how we use textual analysis of 10-K filings to measure fair value reliance. Inferences remain the same when we employ these measures.

To our knowledge, our study provides the first systematic evidence on the effect of fair value accounting standards on litigation risk. Thus, we contribute to the literature on the costs and benefits of fair value accounting. This literature has primarily focused on whether

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fair value accounting provides relevant and reliable information for capital market decisions (e.g., Landsman, 2007). We speak to another important use of accounting information, namely for use in litigation (Holthausen and Watts, 2001). Our analyses answer the call of Laux and Leuz (2009) to better understand how fair value accounting and its implementation interact with institutions such as the legal system.

Our study also contributes to the literature on the nature of accounting standards and litigation risk. Prior work finds that clear rules and complex guidance shield firms from litigation risk (Donelson et al., 2012). Fair value accounting often involves complex transactions and guidance, and, in this respect, our findings are consistent with prior work on rules-based accounting standards. However, determining "fair market value" also involves subjectivity and professional judgment, which many associate with "principles-based," not "rules-based," standards. Our findings are consistent with the notion that complex economics and the frequent lack of an objective measure of "true" market value make it difficult for plaintiffs to convincingly allege that managers applied fair value standards in bad faith.

2. Background and prior literature

2.1. Federal securities litigation

Before discussing fair value accounting and how it might affect the threat of securities litigation, we first provide an overview of securities litigation. Securities litigation in the U.S. occurs when security holders allege financial losses caused by misstatements (or omissions) of material facts. Firms, along with their officers, directors, auditors, and underwriters, can all be held liable under federal law under the Securities Acts. Since the late 1990s, securities class actions must be filed in federal court under the Securities Litigation Uniform Standards Act.

We focus on GAAP-related cases that involve financial statements that allegedly violated GAAP. However, many securities class actions do not allege misstated financial statements (e.g., misleading disclosure cases, such as those involving earnings forecasts). We exclude such cases. Most GAAP-related cases involve Rule 10b-5, which requires plaintiffs to allege the misstatements were fraudulent (i.e., made with intent or "scienter"). Thus, mere errors or bookkeeping mistakes are generally insufficient for liability in securities class actions.¹

Since December 1995, securities class actions have been governed by the Private Securities Litigation Reform Act (PSLRA), which was passed to reduce frivolous cases. Under the PSLRA, plaintiffs must allege specific "facts giving rise to strong inference that the defendant acted with the required [fraudulent] state of mind" (15 U.S.C. section 78u-4(b)(2)). In a GAAP case, plaintiffs must detail how GAAP was allegedly violated and plead facts to support the allegations. GAAP-related cases can be dichotomized into restatement cases and non-restatement cases, the firm has already restated its financials (or announced its intention to do so), so a misstatement is not at issue. Rather, plaintiffs must contend that the admitted misstatement was intentional. In a non-restatement case, plaintiffs must credibly allege previously issued financial statements were intentionally misstated.²

After litigation is filed, defendants typically file a motion to dismiss the case, which stops discovery until a judge rules on the motion. In ruling on the motion, the key element in most cases is fraudulent intent (scienter) (see Pritchard and Sale, 2005). As discussed below, the nature of the accounting standard involved may be an important factor in assessing managerial intent.

2.2. Fair value accounting

The academic debate over fair value accounting centers on whether it affects the ability to evaluate management's performance, facilitate efficient contracting, and inform equity investors (Kothari et al., 2010). The vast majority of the prior accounting literature examines the effect of fair value accounting on equity valuation (see Landsman, 2007 for a review). A general finding of the prior literature is that fair value measurements of items regularly sold in liquid markets tend to be value relevant and/or correlated with future payoffs–such as interest income or realized gains and losses (e.g., Barth, 1994; Evans et al., 2014). Kothari et al. (2010) raise concerns over the effect of fair value accounting on the other uses of accounting information, such as the evaluation of management or its stewardship role. They note that fair value accounting for intangible assets or assets not traded in an active market could be problematic because (1) such assets may not be separable or salable, (2) management can manipulate the inputs to valuation models, (3) fair value models may not be reliable, and (4) there is significant uncertainty about expected future cash flows and probability of said cash flows. These, among other reasons, are at the center of the debate surrounding whether fair value accounting provides information useful for debtholders regarding stewardship or stockholders in evaluating management performance (Kothari et al., 2010).

Accordingly, Holthausen and Watts (2001) call for research that explores the effect of accounting standards on the uses of accounting information beyond equity valuation, such as litigation. Academics have specifically expressed concern about the effect of fair value accounting on firms' litigation environment. Several prior studies suggest or claim that fair value accounting may increase litigation risk (e.g., Benston, 2008; Liang and Riedl, 2014; Goncharov et al., 2014; Mahieux, 2024). The audit literature has raised concerns about "high uncertainty" fair value estimates increasing litigation risk for auditors and their clients (e.g., Bell and Griffin,

¹ Securities class actions can be brought under Section 11 of the 1933 Act, which does not require scienter. However, these cases require a misstatement in connection with a securities issuance and are less common.

 $^{^2}$ This can occur, for example, after a large write-down or an increase in sales return reserves. Plaintiffs in these cases typically argue that the write-down should have been recorded earlier or that the revenue associated with returnable items should never have been recorded in the first place (see Donelson et al., 2012).

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2012; Christensen et al., 2012). Consistent with this concern, Laux and Leuz (2009) suggest banks may have felt compelled to use arguably distorted "fire sale" prices to value assets during the financial crisis due to potential litigation risk related to less verifiable Level 2 and 3 fair value measurements. Like Holthausen and Watts (2001), Laux and Leuz (2009) call for more research on the interplay between fair value accounting and the litigation environment (p. 833).

2.3. Hypothesis development

Despite the call for research on the relation between fair value accounting and litigation risk, there is, to our knowledge, no prior research examining this issue. We conjecture that fair value accounting may affect litigation risk through four channels: a primary channel and three other channels that operate through increased earnings volatility, misreporting, and fraud.

2.3.1. The primary channel

The primary channel is the effect of fair value standards on the probability of litigation related to the reporting issues governed by the standards. For example, the requirement to recognize intangibles acquired in a business combination at fair value might lead to more litigation related to the valuation and impairment of intangibles. The concerns here are based on the idea that fair value accounting involves significant subjectivity and judgment, which is a major concern for illiquid items that are not actively traded (e.g., intangibles, goodwill, long-lived assets, mortgage service rights, etc.). This inherent estimation uncertainty could increase the chance that plaintiffs will "second-guess" preparers after the fact and attribute their losses to intentional managerial manipulation. Plaintiffs, for example, might argue that valuation models intentionally ignored unfavorable inputs or that fair value write-downs should have been recorded sooner (see Herz et al., 2008). That said, these concerns regarding estimation uncertainty do not apply to liquid items in active markets (i.e., Level 1 securities).

However, fair value accounting might be associated with lower litigation risk due to two factors that make it harder for plaintiffs to allege scienter. First, fair value accounting is complex, especially for assets or liabilities not traded in active markets. This complexity is driven by: (1) the complexity of the underlying transaction, (2) the complexity of the valuation model, (3) uncertainty about expected future cash flows, and (4) uncertainty about the appropriate discount rate. SFAS 157 – the standard governing fair value measurement – contains 36 pages of implementation guidance and 19 pages discussing present value techniques.

The second factor is the inherent subjectivity of fair value estimates mentioned above. Ironically, this subjectivity – which purportedly increases litigation risk – may shield firms from claims of intentional manipulation. The reason is that when firms must make subjective estimates using complex methods and uncertain inputs, it can be difficult for plaintiffs to allege managers acted in bad faith. In non-restatement cases, fair value estimates that later turned out to be incorrect can be characterized as difficult estimates made in good faith, but not fraud. Even in restatement cases, where a firm has admitted a misstatement, it may be difficult for plaintiffs to allege fraud because it can be viewed as an innocent mistake in a complex area rather than an intentional GAAP violation (see Donelson et al., 2012).

2.3.2. The volatility channel

Aside from the primary effect, fair value accounting could also affect litigation risk through its impact on earnings volatility. For example, a firm that is required to mark its derivatives or securities to fair value is likely to have larger swings in earnings. Consistent with this notion, Hodder et al. (2006) report that banks' net income under a fair value regime is approximately five times more volatile than under a non-fair value regime. Higher earnings volatility could lead to higher stock return volatility. With higher return volatility, the firm's stock price will have higher highs and lower lows during the class period. Given this, the plaintiffs' ex-post characterization of the stock price as "inflated" will be easier, increasing litigation risk for the firm for two reasons. First, the drop from the allegedly "inflated" stock price will be greater. This will increase firms' litigation risk because large stock price drops allow plaintiffs to claim "the truth" behind an alleged fraud has been "revealed." These large drops are, therefore, a key trigger that precipitates securities litigation (Francis et al., 1994). Second, because market losses determine damages, the large downward swing from a higher price will increase expected damages. This is important as plaintiffs are more likely to pursue cases with higher expected damages (Coffee Jr, 2006; Alexander, 1990).

The accounting issues litigated through the volatility channel need not involve fair value items. For example, assume a plaintiff alleges the firm improperly recognized revenue. Further, assume the firm marked its derivatives or investments to fair value during the class period and thus had higher earnings and returns volatility. In this case, the alleged violation did not involve fair value. However, the volatility induced by fair value accounting increased the likelihood of a large stock price drop and increased expected damages. Hence, though revenue was alleged to have been violated, fair value accounting could increase the likelihood of litigation via volatility.

2.3.3. The misstatement and fraud channels

In addition to fair value accounting possibly increasing litigation through the volatility channel, fair value could also increase litigation risk through its impact on misreporting or fraud. Overall, it is unclear whether reliance on fair value accounting will be associated with misreporting or fraud. The argument in favor of greater misreporting or fraud is that the inherent discretion and complexity in fair value may allow managers to manipulate financial reporting or, less nefariously, simply make mistakes, and lower verifiability compounds the problem (e.g., Kothari et al., 2010; Dechow et al., 2010; Ramanna and Ross, 2012). The canonical example is Enron, which abused mark-to-market accounting to hide massive losses and risky investments. If fair value accounting increases the likelihood of misreporting and fraud, this may, in turn, increase litigation risk.

On the other hand, there are two arguments that suggest fair value may *not* lead to greater misreporting or fraud and, therefore, may have no effect on litigation risk through these two channels. First, Hodder and Sheneman (2022) argue that fair value does not necessarily lead to more opportunistic reporting because: a) investors and auditors scrutinize these measures, and b) firms have

Table 1 Sample selection

Panel A: Incidents of Securities Class Action Alleging a Violation of GAAP	
Total securities class action filed between 1996 and 2017 (Stanford Securities Class Action Clearinghouse)	4785
Less: Cases without available complaint documents (Stanford Securities Class Action Clearinghouse)	(358)
Less: Cases that cannot be matched to Compustat	(967)
Less: Cases that do not specifically allege a violation of GAAP (Stanford Securities Class Action	(2105)
Clearinghouse)	
Final sample of GAAP securities class actions	1355
Panel B: Sample Selection	
Table 3 Sample Selection	
Total firm-year observations from 1996 to 2015 (Compustat) with non-missing historical ticker (CRSP) and non-missing CIK	137,775
(Compustat)	
Less: Observations with missing data on control variables (Compustat/CRSP/Audit Analytics)	(30,485)
Less: Observations with missing data to calculate FV_RELIANCE variable (10-K Filings)	(18,498)
Final sample of firm-year observations	88,792
Table 4 Column 1 and Table 5 Sample Selection	
Total firm-year observations from Table 3	88,792
Less: Observations with missing data on control variables (Compustat)	(5082)
Final sample of firm-year observations	83,710
Table 4 Columns 2 & 3 Sample Selection	
Total firm-year observations from Table 3	88,792
Less: Observations with missing data on control variables (BoardEx; Compustat)	(34,654)
Final sample of firm-year observations	54,138

sufficient existing discretion in non-fair value areas of GAAP. Consistent with these arguments, Hodder and Sheneman (2022) find that, in an investment security setting, fair value measurement itself does not appear to play a large role in opportunistic avoidance of impairment losses.

Second, even if fair value leads to worse or more opportunistic reporting, it is not clear this will manifest in *detected* GAAP violations that attract or reflect outside scrutiny, like restatements or AAERs – and detected GAAP violations are what often trigger litigation. Fair value accounting involves significant judgment and estimation, and restatements are only required when a misstatement exists, not if an estimate changes or turns out to be inaccurate. Thus, fair value accounting may not increase restatement risk. Further, just as private plaintiffs must allege intent in securities litigation, so too must the SEC in an AAER if they seek penalties or disgorgements related to alleged fraud (see Donelson et al., 2021). Since the subjectivity and complexity of fair value accounting make alleging intent difficult, more opportunistic use of fair value accounting may not necessarily lead to more AAERs.

Given that the primary, volatility, misstatement, and fraud channels could have offsetting effects on litigation risk, we state our hypothesis in the null.

Hypothesis. There is no overall effect of fair value accounting on the risk of accounting-related securities litigation.

3. Overview of tests and sample construction

The sample starts with GAAP-related securities class actions. As indicated in Panel A of Table 1, we begin with all securities class action complaints filed through 2017 (covering fiscal years from 1996 to 2015) from the Stanford Securities Class Action website.³ We search the complaints for allegations that GAAP standards were violated and exclude cases that do not allege a GAAP violation (e.g., disclosure cases).⁴ Overall, we identify 1355 cases that allege specific GAAP violations with matching identifiers from COMPUSTAT/CRSP.

Panel B of Table 1 provides an overview of the samples for our main tests. First, in Section 4.1 and Table 3, we examine whether firmyears that rely more on fair value accounting standards are exposed to greater litigation risk (we determine reliance on fair value accounting based on a firm's 10-K filing, a methodology that we describe in more detail in the next section). This is our broadest test that uses the universe of COMPUSTAT firms over our sample period. The sample in this test consists of 88,792 firm years. Second, in Section 4.3 and Table 4, we examine whether reliance on fair value is associated with greater earnings volatility, accounting misstatements, or fraud, using a sample of either 83,710 or 54,138 observations (which consists of the 88,792 observations from Table 3 less observations with data missing on required control variables). Finally, in Section 4.3 and Table 5, we extend the prior analyses by conducting a path analysis to test the different channels through which fair value accounting may impact firms' litigation risk. In this analysis, we have a final sample of 83,710 observations. We supplement these main tests with additional analyses that we discuss in Section 5.

We offer descriptive statistics on the 1355 GAAP-related securities class actions, as readers may be unfamiliar with litigation involving fair value standards. Panel A of Table 2 documents that 22% of the GAAP-related cases cite fair value standards. Fair value

³ Our sample of securities class actions includes cases filed through 2017 because it takes time for fraud to be uncovered and then for a case to be filed. Hence, we include all cases filed through 2017 that pertain to 1996–2015 to ensure we have a complete sample of cases and financial data that pertains to the alleged GAAP violation.

⁴ See Appendix A for more details on search terms and details on the specific GAAP standards in our sample.

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Table 2

Descriptive statistics and Pearson correlations.

Panel A: Citation of Fair Value Standards in Class Action Lawsuits							
	Ν	%					
Securities Class Actions Involving Fair Value Standards	304	22.44%					
Securities Class Actions Not Involving Fair Value Standards	1051	77.56%					
Total Securities Class Actions	1355						

Panel B: Industry Breakdown for Class Actions that Cite Fair Value Standards

	Secur	Securities Class Actions Involving Fair Value Standards		ties Class Actions Not Involving Fair Value Standards
	Ν	%	N	%
Consumers Non-Durables	12	3.95%	46	4.38%
Consumers Durables	8	2.63%	26	2.47%
Manufacturing	12	3.95%	66	6.28%
Oil, Gas & Coal	6	1.97%	22	2.09%
Chemicals & Allied Products	3	0.99%	17	1.62%
Business Equipment	72	23.68%	315	29.97%
Telephone & Television Transmission	11	3.62%	29	2.76%
Utilities	15	4.93%	11	1.05%
Wholesale, Retail & Some Services	25	8.22%	96	9.13%
Healthcare, Med. Equipment & Drugs	25	8.22%	123	11.70%
Finance	77	25.33%	151	14.37%
Other	38	12.50%	149	14.18%
Total Securities Class Actions	304		1051	

Panel C: Common Standards Involved in Class Actions that Cite Fair Value Standards

Top 5 Fair Value Standards in Fair Value Cases	Ν	Торіс
SFAS 13	54	Leases
SFAS 121	50	Long Lived Asset Impairments
SFAS 142	47	Goodwill
SFAS 115	36	Debt/Equity Securities
APB16	27	Business Combinations
Top 5 Standards in Non-Fair Value Cases	Ν	Торіс
SFAC 5_6	280	Revenue Recognition
SFAS 5	168	Contingent Liabilities
SAB 101	99	Revenue Recognition
APB 20	73	Accounting Changes/Restatements
SFAS 48	60	Revenue Recognition/Right of Return

Panel D: Descriptive Statistics for Firm-Year Sample

Variable	Mean	Std. Dev.	25%	Median	75%
SUED	0.02	0.16	0.00	0.00	0.00
FV_RELIANCE	9.55	8.80	3.17	7.25	13.47
FPS	0.30	0.46	0.00	0.00	1.00
SIZE	5.90	2.17	4.32	5.86	7.39
SALES_GROWTH	0.23	0.76	-0.03	0.08	0.25
STOCK_RETURN	0.01	0.60	-0.34	-0.07	0.22
RET_SKEW	0.47	1.19	-0.05	0.35	0.86
RET_VOL	0.04	0.02	0.02	0.03	0.05
TURNOVER	1.94	2.31	0.55	1.21	2.41
ROA	-0.06	0.35	-0.04	0.02	0.06
BIG4	0.78	0.42	1.00	1.00	1.00
ISSUE	0.80	0.40	1.00	1.00	1.00
NONFV_RELIANCE	16.71	11.98	8.61	14.77	23.02
RBC	42.73	32.47	19.21	36.99	60.09
REVENUE	3.23	4.14	0.49	1.61	4.28
COMPLEX	11.20	9.58	4.86	9.22	15.39
10K_LENGTH	10.59	0.62	10.18	10.61	11.00
CASH_VOL	103.40	357.77	3.84	13.04	52.70
SALE_VOL	73.84	252.66	2.45	9.53	38.57
OPER_CYCLE	3.59	2.53	0.00	4.54	5.15
OPER_CYCLE_DUMMY	0.29	0.46	0.00	0.00	1.00
LOSSES	0.32	0.34	0.00	0.17	0.58
INT_INTENSITY	0.03	0.08	0.00	0.00	0.00
INT_DUMMY	0.79	0.41	1.00	1.00	1.00
CAPEX_INTENSITY	0.23	0.23	0.05	0.14	0.34
EARN_VOL	3.78	14.76	0.10	0.36	1.50

(continued on next page)

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Table 2 (continued)

Panel D: Descriptive Statistics for Firm-Year Sample

Paner D: Descriptive statistics for Firmi-rear Sample									
Variable	Mean	Std. Dev.	25%	Median	75%				
LARGE_PRICE_DROP	4.02	7.35	0.00	1.00	4.00				
SUED_SETTLED	0.01	0.12	0.00	0.00	0.00				
SUED_DISMISSED	0.01	0.09	0.00	0.00	0.00				
RESTATE	0.10	0.29	0.00	0.00	0.00				
AAER	0.01	0.09	0.00	0.00	0.00				
AC_SIZE	3.78	1.01	3.00	4.00	4.00				
BOARD_SIZE	9.72	3.43	7.00	9.00	12.00				
BOARD_INDEP	0.62	0.15	0.50	0.63	0.72				
CEO_CHAIRMAN	0.35	0.48	0.00	0.00	1.00				
INST_OWNERSHIP	0.46	0.33	0.16	0.44	0.75				
MTB	2.88	5.37	1.08	1.84	3.34				
LEVERAGE	0.18	0.21	0.00	0.10	0.30				
NEW_FV_STANDARDS	2.36	1.92	1.00	2.00	3.00				
NEW_STANDARDS	3.85	2.11	2.00	4.00	5.00				
FV_BS	0.40	0.28	0.15	0.37	0.62				
FV_RELIANCE_COUNT	9.22	4.57	7.00	10.00	12.00				

Panel E: Pearson Correlations for Firm-Years Sample

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1)	SUED	1.00							
(2)	SUED_SETTLED	1.00	1.00						
(3)	SUED_DISMISSED	1.00	1.00	1.00					
(4)	RESTATE	0.13	0.11	0.07	1.00				
(5)	AAER	0.18	0.20	0.06	0.20	1.00			
(6)	FV_RELIANCE	0.05	0.03	0.03	0.05	0.00	1.00		
(7)	FV_BS	-0.02	-0.03	0.00	0.02	-0.03	0.14	1.00	
(8)	FV_RELIANCE_COUNT	0.03	0.02	0.02	0.03	0.00	0.76	0.09	1.00
(9)	NEW_FV_STANDARDS	0.01	0.02	0.00	0.04	0.02	-0.02	-0.13	-0.04

This table presents descriptive statistics and Pearson correlations for our samples. All continuous variables are winsorized at the 1st and 99th percentiles. Bold values indicate statistical significance at the 0.10 level or lower.

standards are listed in Appendix D. We identify fair value standards using the list provided by the FASB in SFAS 157, which denotes all standards that require fair value accounting.⁵

Panel B of Table 2 shows the Fama-French 12 industry distribution of cases that cite and do not cite fair value standards. Cases citing fair value standards are widely distributed across various industries and are most common in Finance, which is not surprising. Still, about 75% of cases citing fair value standards name defendants outside the financial sector. Panel C of Table 2 sheds light on why this is the case. For the 304 cases citing fair value standards, the top 5 most common fair value standards cited include standards for leases, asset impairments, goodwill, investment securities, and business combinations. ^{6,7} These transactions are ubiquitous across industries. For the cases not citing fair value standards, the top 5 standards cited included those for revenue recognition, contingent losses, and restatements.⁸

Overall, the descriptives in Table 2 indicate that cases citing fair value standards are not uncommon and involve firms across a variety of industries. Notably, litigation involving fair value accounting centers around more than just the investment portfolios of financial institutions. However, these descriptive statistics do not indicate whether firms that rely more on fair value accounting are more likely to be sued, nor whether violations of fair value standards are more likely to trigger litigation. We test these possibilities next.

⁵ For standards issued after SFAS 157, we code the standard as a fair value if it mentions fair value and references SFAS 157 (for an SFAS) or references the definition of fair value from ASC 820 (for an ASU). See Appendix A for a list of fair value standards and more detail on all GAAP standards used in our sample.

⁶ SFAS 13 (leases) has numerous references to fair value, primarily in the criteria used to identify capital leases.

⁷ Three standards that amend SFAS 13 are noted as "Fair Value" standards per Appendix D of SFAS 157. We thus code SFAS 13 as a fair value standard. That said, SFAS 157 notes that fair value measurement pertaining to the lease classification under SFAS 13 is excluded from its scope. To assess whether our results are sensitive to coding SFAS 13 as a fair value standard, we rerun our analyses after recoding SFAS 13 as a "non-Fair Value" standard. We find that our results remain statistically and economically significant (untabulated).

⁸ APB 20 is cited when the defendant firm restates its class-period financial statements. The plaintiff typically notes that a restatement is allowed only to correct a misstatement, not for a change in estimate or accounting principle. Plaintiffs note this because they must allege a misstatement, and a firm announcing a restatement stipulates this fact.

Independent Variables	Pr.	Dependent	Variable: Pr(SI	UED = 1)				Dependent	Variable: Pr(<i>SUED_SETTLED</i> = 1)	Dependent	t Variable: $Pr(SUED_DISMISSED = 1)$	
		(1)		(2)		(3)		(4)		(5)	(5)	
Test Variable:		Coeff.	t-stat	Coeff.	t-stat	Coeff.	t-stat	Coeff.	t-stat	Coeff.	t-stat	
FV_RELIANCE	?	-0.0438	-3.97***	-0.0128	-2.65***	-0.0502	-4.61***	-0.0497	-3.71***	-0.0295	-1.40	
Control Variables:												
FPS		0.0361	0.25	0.0304	0.21	0.1047	0.72	0.0987	0.50	-0.0368	-0.15	
SIZE		0.3205	12.02***	0.3292	12.48***	0.2827	10.60***	0.3187	9.12***	0.3033	6.34***	
SALES_GROWTH		-0.0470	-1.60	-0.0503	-1.71*	-0.0095	-0.37	-0.0217	-0.63	-0.1327	-2.39**	
STOCK_RETURN		-0.3419	-6.31^{***}	-0.3402	-6.30***	-0.2935	-5.29***	-0.4576	-6.59***	-0.1621	-1.83^{*}	
RET_SKEW		-0.4009	-17.53***	-0.4044	-17.65***	-0.4054	-17.82^{***}	-0.3813	-12.84***	-0.4480	-11.54***	
RET_VOL		19.4539	11.56***	19.3899	11.59***	21.0235	14.78***	17.7476	8.13***	22.2820	7.95***	
TURNOVER		0.1369	15.35***	0.1360	15.27***	0.1203	13.30***	0.1323	11.74***	0.1435	9.96***	
ROA		-0.0730	-0.97	-0.0578	-0.76	-0.1230	-1.68*	-0.1540	-1.91*	0.1363	0.60	
BIG4		-0.4740	-4.64***	-0.4741	-4.64***	-0.2100	-2.14**	-0.6261	-4.76***	-0.1739	-0.97	
ISSUE		0.2578	2.58***	0.2458	2.45**	0.3433	3.45***	0.3774	2.57***	0.1315	0.88	
NONFV_RELIANCE		0.0000	0.01			0.0052	1.02	-0.0017	-0.27	-0.0006	-0.06	
RBC		0.0118	3.45***			0.0123	3.63***	0.0107	2.64***	0.0154	2.30**	
REVENUE		0.0363	3.94***	0.0560	7.61***	0.0127	1.45	0.0471	4.07***	0.0253	1.62	
COMPLEX		-0.0043	-0.71			-0.0023	-0.34	0.0018	0.25	-0.0226	-1.37	
10K_LENGTH		0.5271	8.38***	0.5698	9.37***	0.4057	6.03***	0.6287	7.60***	0.3042	2.97***	
Industry Fixed Effects		YES		YES		YES		YES		YES		
Year Fixed Effects		YES		YES		NO		YES		YES		
Ν		88,792		88,792		88,792		85,739		85,468		
Pseudo R-squared/ROC		15.50%/0.	81	15.33%/0.	.80	13.69%/0.	79	16.17%/0.	82	14.06%/0.	.82	

Table 3 Reliance on fair value accounting standards and litigation risk.

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This table presents a multivariate regression analysis that examines whether firms that rely more on fair value standards are more or less likely to be sued. The unit of analysis is firm-year observations. All variables are defined in Appendix B. The model is a logistic regression with robust standard errors clustered by firm in all columns. ***, **, and * indicate significance at the 0.01, 0.05, and 0.10 levels, respectively, using two-tailed tests.

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-3.71***

Table 4

Reliance on fair value accounting standards and earnings volatility, misstatements, and AAERs.

Independent Variables	iables Pr. Dependent Variable: EARN_VOL		Dependent	Dependent Variable: $Pr(RESTATE = 1)$		Dependent Variable: Pr(AAER = 1)	
		(1)		(2)		(3)	
Test Variable:		Coeff.	t-stat	Coeff.	t-stat	Coeff.	t-stat
FV_RELIANCE	+/?	0.1018	3.58***	-0.0020	-0.22	-0.0251	-1.15
Control Variables Industry and Year Fixed Effects N Adjusted or Pseudo R-squared/ROC		YES YES 83,710 15.67%		YES YES 54,138 11.86%/0.	76	YES YES 38,441 14.71%/0	82

This table presents a multivariate regression analysis that examines whether firms that rely on fair value standards have greater earnings volatility, are more likely to materially violate GAAP, or are more likely to commit fraud. The unit of analysis is firm-year observations. Control variables are included in all models but are suppressed for parsimony. Following Francis et al. (2004), the control variables in Column 1 are *SIZE, CASH_VOL, SALE_VOL, OPER_CYCLE, OPER_CYCLE_DUMMY, LOSSES, INT_INTENSITY, INT_DUMMY*, and *CAPEX_INTENSITY*. Following Badolato et al. (2014) and Ashraf (2024), the control variables in Columns 2 & 3 are *AC_SIZE, BOARD_SIZE, BOARD_INDEP, CEO_CHAIRMAN, INST_OWNERSHIP, SIZE, MTB, LEVERAGE, ISSUE*, and *ROA*. We also control for *NONFV_RELIANCE, RBC, REVENUE, COMPLEX*, and *10K_LENGTH* in all columns. All variables are defined in Appendix B. The model in Column 1 is ordinary least squares with robust standard errors clustered by firm. ***, **, and * indicate significance at the 0.01, 0.05, and 0.10 levels, respectively, using two-tailed tests.

Table 5

Total Effect:

Reliance on fair value accounting standards and litigation risk: Path model.

Independent Variables	Pr.	Dependent	Variable:						
		EARN_VOL	EARN_VOL		LARGE_PRICE_DROP		SUED		
		(1)		(2)		(3)			
Test Variables:		Coeff.	t-stat	Coeff.	t-stat	Coeff.	t-stat		
FV_RELIANCE	+/?	0.0596	3.58***			-0.0097	-3.73***		
EARN_VOL	+			0.1688	25.91***				
LARGE_PRICE_DROP	+					0.0048	6.56***		
Control Variables		YES		YES		YES			
Industry and Year Fixed Effects		YES		YES		YES			
N		83,710		83,710		83,710			
							t-stat		
Primary Effect:		-0.0	097				-3.73***		
Volatility Effect:		0.000	$005 [= 0.0596 \ge 0.0596 = 0.$.1688 x 0.0048]			3.08***		

This table presents a path model that examines whether firms that rely more on fair value standards are more or less likely to be sued. The unit of analysis is firm-year observations. For ease of interpretation, in this analysis, *EARN_VOL*, *LARGE_PRICE_DROP*, and *FV_RELIANCE* are standardized to a mean of zero and a standard deviation of one. Control variables are included in all models but are suppressed for parsimony. The control variables in Columns 1 & 2 are the same as in Column 1 of Table 4. The control variables in Column 3 are the same as Table 3 except excluding *RET_VOL*. All variables are defined in Appendix B. The models are simultaneously estimated linear regressions with robust standard errors clustered by firm. ***, **, and * indicate significance at the 0.01, 0.05, and 0.10 levels, respectively, using two-tailed tests. Standard errors used to estimate the statistical significance of the volatility effect and total effect are calculated using the delta method (Krull and MacKinnon, 2001; Sobel, 1987).

-0.00965 [= -0.0097 + 0.00005]

4. Empirical tests and results

4.1. Are firms that rely more on fair value standards subject to increased litigation risk?

We first test the association between a firm's reliance on fair value standards and litigation risk. For each firm-year observation, we use a measure similar to that of Folsom et al. (2017) to measure fair value reliance. The steps to derive this measure are as follows.

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First, we use Folsom et al.'s (2017) keyword dictionary and count the number of times the keywords for each standard are mentioned in a firm's 10-K each year (including mentions of each standard by name).⁹ Folsom et al. (2017) validate their keyword dictionary extensively.¹⁰ The keyword count captures how much each firm relies upon a standard in a given year. For example, firms that mention "lease" or "derivative" more in their 10-K would be classified as firms that rely more on SFAS 13 and SFAS 133, respectively. Then, for each firm-year-standard keyword count, we subtract the average of that standard's keyword count (calculated across all firm-year observations for which the standard is effective) and scale the demeaned measure by the standard deviation of that standard's keyword hit count (calculated across all firm-year observations for which the standard more frequently than others due to differences in keyword quality or transaction prevalence. Standardizing thus puts hit counts for each area of GAAP on a comparable basis and yields a 'relative impact score.' To facilitate interpretation, we add back the standard's minimum impact score (calculated as the minimum for all firm-year observations for which the standard is effective) to each firm-year-standard impact score. Thus, a relative impact score of zero denotes the lowest reliance on a given standard by a firm-year.

To calculate a firm-year's fair value reliance score, we sum the relative impact score of each fair value standard for each firm-year observation. This yields our *FV_RELIANCE* measure. Unlike Folsom et al. (2017), this measure captures both cross-sectional and time-series variation in reliance on fair value standards.¹¹ This is important because firms are exposed to fair value accounting via multiple channels that can vary across firms and time. First, GAAP requires some items, like derivatives, to be marked to fair value on a recurring basis. This will disproportionally affect firms that hold more of these items, and these effects will be more pronounced in time periods with volatile market prices. Second, GAAP requires fair value accounting on a non-recurring basis conditional on triggering economic events like asset remeasurements (e.g., PP&E or goodwill impairments) or business combinations, and these events will vary across firms and time. SFAS 157 discusses both types of fair value measurements, and our measure captures both.

Our measure captures cross-sectional exposure to fair value because firms that rely more on fair value standards will have higher values of *FV_RELIANCE* as captured by relatively more keyword hits for a given set of standards. Our *FV_RELIANCE* captures time-series variation because, by construction, it increases when a new fair value standard is passed. To verify this, in Fig. 1, we plot the average value of *FV_RELIANCE* across sample years. As expected, we observe a gradual increase in fair value reliance over time, with a spike during the financial crisis. This makes sense given the financial crisis generated large losses for items measured on a recurring basis and was likely a triggering event that exposed firms to impairments.



Fig. 1. Variation in FV_RELIANCE over time.

⁹ The list of keywords for each standard is linked in Appendix A.

¹⁰ First, they ask standard-specific experts from a Big 4 national office to assess the validity of keywords for the standards for which they are experts. Second, they provide evidence that keyword hit counts for each standard are correlated with the relative magnitude of the associated financial statement line item, where possible. Finally, they demonstrate convergent and divergent validity with respect to where one would expect high and low word counts (e.g., within industry for an industry-specific standard).

¹¹ Folsom et al. (2017) standardize the relative impact measure for each standard based on *yearly* mean and standard deviation values, which will not pick up increases in how much all firms mention keywords for fair value standards over time. In contrast, the measure we use in this study will.

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Although we believe *FV_RELIANCE* is a reasonable proxy for fair value exposure, we acknowledge its limitations. First, firms likely mention fair value keywords more often when fair value realizations in a given period are significant. *FV_RELIANCE* could, therefore, capture the extent of ex-post realizations of fair value measurement more so than ex-ante requirements to use fair value accounting. Second, since it is a relative impact measure, *FV_RELIANCE* captures cross-sectional exposure to fair value accounting. Further, though we construct it to capture time-series variation in fair value requirements, the time-series variation may be muted, to some extent, because we demean the measure by the average of that standard's keyword count calculated across all firm-year observations. Relatedly, *FV_RELIANCE* captures differences in relative litigation risk (the risk of some firms relative to others), not necessarily the absolute litigation risk faced by the average firm. We address these limitations with tests of relative versus absolute litigation risk. Further, we use alternative measures of fair value reliance and find inferences similar to those from our main analyses – see Section 5.2.

For our first test, we estimate variations of the following logistic regression:

$Pr(SUED = 1) = f(\alpha + \beta_1 FV_RELIANCE + \beta[Controls]),$

(1)

where *SUED* is an indicator variable equal to one if a GAAP securities class action is filed and the alleged class period contains the fiscal year in question. For controls, we follow Kim and Skinner (2012) and Donelson et al. (2012) and include standard firm attributes, such as size and stock return properties, shown to be associated with securities litigation.¹² This regression controls for return volatility because it is a standard determinant in most litigation models. However, as discussed in Section 2, reliance on fair value accounting may increase litigation risk through increased return volatility, which suggests we may be controlling for part of the effect of interest. We explore this possibility in a subsequent path analysis.

We also control for other characteristics of the accounting standards that firms rely on, including their complexity, rules-based attributes, and whether they involve revenue recognition (Donelson et al., 2012).¹³ To ensure that reliance on fair value standards does not just capture large or complex firms that rely on many standards and to ensure that we effectively differentiate between the effect of fair value standards and the effect of non-fair value standards (which are conceptually different, see Section 2), we also control for the length of the firm's 10-K filing (*10K_LENGTH*) and the extent to which a firm relies on non-fair value standards in GAAP (*NONFV_RELIANCE*).¹⁴ We include industry and year fixed effects because both fair value reliance and litigation risk vary across industries and time, and we do not want any association to simply reflect differences across industry or across time in litigation risk.

Panel D of Table 2 presents descriptive statistics for this analysis, Panel E of Table 2 presents the univariate correlations between our main test and dependent variables, and Appendix C presents the full correlations table. Variables are defined in Appendix B. The descriptive statistics suggest that, on average, two percent of the firm-year observations in our sample result in a GAAP-related securities class action. As expected, fair value reliance is positively correlated with firm size, 10K length, exposure to RBC standards, and exposure to complex transactions. In addition, and perhaps not surprisingly, firms that rely more on non-fair value standards in GAAP (*NONFV_RELIANCE*) are more likely to rely on fair value standards (*FV_RELIANCE*). Interestingly, *FV_RELIANCE* is positively associated with *SUED*, suggesting that reliance on fair value standards is associated with greater litigation risk. However, *FV_RELIANCE* is also strongly correlated with other factors that increase litigation risk (e.g., firm size), so it is difficult to draw strong conclusions from this univariate correlation.

Regression results are tabulated in Table 3. We find a significant negative relation between fair value reliance and the incidence of securities litigation in column 1 (p < 0.01). In terms of economic significance, if we evaluate all variables at their means, the marginal effect of an increase of one standard deviation in *FV_RELIANCE* lowers the likelihood of litigation by 0.49 percentage points, or a 24.5% reduction relative to the sample mean of *SUED* (untabulated). Further, the associations between control variables and litigation risk are generally consistent with the prior literature: larger firms and higher trading volume are associated with greater litigation risk (e.g., Kim and Skinner, 2012), and more exposure to revenue standards is associated with greater ligation risk (Donelson et al., 2012).

Given the high correlations between *FV_RELIANCE* and some control variables (see Panel A of Appendix C), one potential concern is whether multicollinearity affects our inferences. We address this concern in a robustness test where we exclude all control variables with a variance inflation factor greater than 5 in the column 1 regression (*NONFV_RELIANCE, RBC*, and *COMPLEX*). Results in column 2 are similar for the primary coefficient of interest (p < 0.01), and all variables have a variance inflation factor below 5 in this regression (untabulated).

Finally, in column 3, we rerun our main model after excluding year fixed effects. Excluding year effects allows the relation between fair values and litigation to be influenced by variation over time in fair value reliance, which may be part of the effect of interest given that fair value accounting in GAAP has increased over time. Results again remain consistent.¹⁵

We further explore the relation between fair value and litigation by examining settled versus dismissed cases. Only settled cases

¹² Some control variables in Donelson et al. (2012) are specific to restatement observations, such as maximum market value lost due to restatement. We include all Donelson et al. (2012) variables that can be calculated for firm-year observations and exclude all control variables that are specific to restatement observations.

 $^{^{13}}$ Standards with rules-based characteristics are defined by Donelson et al. (2012) as having: 1) numeric, bright line thresholds, 2) scope and legacy exceptions, 3) a high level of detail, and 4) a high number of interpretive pronouncements. Each standard in GAAP has a score ranging from 0 to 4 for the presence of these characteristics. Complexity is based on whether the standard describes the underlying transaction as complex or complicated. See Donelson et al. (2012) for more details.

¹⁴ Note that *FV_RELIANCE* and *NONFV_RELIANCE* are not proportions that sum to one. Firms that rely on a few (many) standards in GAAP will tend have low (high) values for both variables.

¹⁵ Inferences are unchanged if we drop industry fixed effects or both industry and year fixed effects (untabulated).

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lead to significant costs for defendants (Donelson et al., 2024; Donelson and Yust, 2019). However, dismissed cases can still lead to other costs, such as inefficiencies in the court system (Donelson et al., 2018). As such, we split securities litigation into settled (i.e., costly) cases and dismissed (i.e., relatively low cost) cases. For this analysis, we use the same specification of Model (1) from our main analysis as presented in the first three columns of Table 3 but split the dependent variable based on whether the case is ultimately settled or dismissed (where each variable equals zero for observations that are not sued).

Results are presented in the last two columns of Table 3.¹⁶ The relation between fair value accounting standards and settled cases is significant and negative (p < 0.01) but is *not* significant at conventional levels for dismissed cases (p = 0.161). This is not solely a power issue, as the coefficient is also economically smaller for dismissed cases. Overall, the negative relation between fair value accounting does not just reduce the threat of nuisance suits.

4.2. Does fair value accounting lead to greater earnings volatility, more misreporting, or more fraud?

Our analysis in the prior section suggests that fair value accounting is associated with lower litigation risk. However, as discussed in Section 2, fair value accounting could also increase litigation risk by increasing earnings volatility, misreporting, or fraud. We now test these possibilities. Specifically, we individually estimate the following regressions:

$$EARN VOL = \alpha + \beta_1 FV RELIANCE + \beta[Controls] + e$$
(2a)

$$Pr(RESTATE = 1) = f(\alpha + \beta_1 FV_RELIANCE + \beta[Controls]),$$
(2b)

$$Pr(AAER = 1) = f(\alpha + \beta_1 FV_RELIANCE + \beta[Controls]),$$
(2c)

The samples used for these tests are similar to the sample in Table 3 except for data requirements to calculate the dependent and control variables. *EARN_VOL* is the standard deviation of the firm's quarterly earnings over years *t* to *t*-2. *RESTATE* is an indicator for whether a firm-year is "Big R" restated after the initial issuance of financial statements.¹⁷ *AAER* is an indicator for whether a firm-year is included in the misstatement period of an Accounting and Auditing Enforcement Release (AAER) issued by the SEC. If reliance on fair value standards increases earnings volatility, misreporting, or fraud risk, the coefficient on *FV_RELIANCE* will be positive (respectively).

Following Francis et al. (2004), the control variable for our *EARN_VOL* regression are firm size (*SIZE*), cash holdings volatility (*CASH_VOL*), sales volatility (*SALE_VOL*), operating cycle (*OPER_CYCLE* and *OPER_CYCLE_DUMMY*), recent negative income (*LOS-SES*), R&D and advertising expenditures (*INT_INTENSITY* and *INT_DUMMY*), and capex expenditures (*CAPEX_INTENSITY*). Following Badolato et al. (2014) and Ashraf (2024), the control variables for our RESTATE and AAER regressions are audit committee size (*AC_SIZE*), board size (*BOARD_SIZE*), board independence (*BOARD_INDEP*), whether the CEO is also the chairman (*CEO_CHAIRMAN*), percent of firm owned by institutional investors (*INST_OWNERSHIP*), firm size (*SIZE*), market-to-book ratio (*MTB*), leverage (*LEVERAGE*), whether the firm-year issues equity (*ISSUE*), and return on assets (*ROA*). We also control for *NONFV_RELIANCE, RBC*, *REVENUE*, *COMPLEX*, and *10K_LENGTH* in all three regressions.

Column 1 of Table 4 tabulates the result from estimating Model (2a). The coefficient on $FV_RELIANCE$ is positive and significant (p < 0.01), suggesting that fair value accounting is associated with greater earnings volatility. This means that fair value accounting could increase litigation risk through an increase in earnings volatility, a possibility that we explore in a path analysis in the next section.

Column 2 in Table 4 contains estimates from Model (2b). We find no significant relation between reliance on fair value accounting and restatement probability. Column 3 in Table 4 presents estimates from Model (2c). We find no significant relation between fair value accounting and the likelihood of AAERs.¹⁸

4.3. Path analysis

We next conduct a path analysis (see Nagar et al., 2019, pg. 53 or Greene, 2002, pg. 397) to test if fair value accounting increases litigation risk through the increase in earnings volatility that we document in the prior section.¹⁹ Fig. 2 presents the path analysis. For the primary channel, fair value reliance could have a path to litigation likelihood related to claims about allegedly misleading fair value accounting. For the volatility channel, fair value may have a path to litigation likelihood by increasing earnings volatility, which, in turn, leads to an increase in the risk of a large stock price drop, thus triggering more securities class actions. We thus expect the volatility channel to have a positive relation with litigation risk, while we expect the primary effect to be negative (similar to the results in Table 3). We jointly estimate the following regressions:

¹⁶ The samples in columns 4 and 5 differ from each other and the sample in column 1 because in column 4 only observations that have a settled case are coded as a 1 and observations with no case are coded as a 0; column 5 is similar except for dismissed cases.

 $^{^{17}}$ Audit Analytics started tracking "Big R" non-reliance restatements in 2004. We backfill earlier restatements as "Big R" if an amended 10-K or 10-Q was filed within 30 days of the restatement announcement.

¹⁸ The sample size differs between Columns 2 & 3 of Table 4 despite having the same control variables because more singleton observations are dropped in Column 3.

¹⁹ We do not conduct a path analysis for the misreporting and fraud channels because, as documented in Section 4.2, we find no evidence of an association between fair value reliance and increased misreporting or fraud.

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(3b)

(3c)



***, **, and * indicate significance at the 0.01, 0.05, and 0.10 levels, respectively, using two-tailed tests. Standard errors used to estimate the statistical significance of the volatility effect and total effect are calculated using the delta method (Krull and MacKinnon, 2001; Sobel, 1997).

Fig. 2. the effect of *FV_RELIANCE* on *SUED* based on the path model in Table 5.

 $EARN_VOL = \alpha + \beta_1 FV_RELIANCE + \beta[Controls] + e$ (3a)

 $LARGE_PRICE_DROP = \alpha + \beta_2 EARN_VOL + \beta[Controls] + e$

 $SUED = \alpha + \beta_3 FV_RELIANCE + \beta_4 LARGE_PRICE_DROP + \beta[Controls] + e$

As in Nagar et al. (2019), the identifying assumption in this path analysis is that the error terms are uncorrelated across equations (i. e., none of the unobservables driving earnings/returns volatility and litigation are correlated). This is a strong assumption in our setting and, as such, the path analysis does not allow us to make definitive causal statements (Lennox and Payne-Mann, 2023). Instead, as with our other tests, this analysis examines associations between fair value reliance, volatility, and litigation, and inferences are based on whether these associations are or are not consistent with our predictions.

Table 5 and Fig. 2 present the estimated path coefficients.²⁰ For ease of interpretation across equations, *FV_RELIANCE, EARN_VOL*, and *LARGE_PRICE_DROP* have all been standardized to have a mean of zero and a standard deviation of one.²¹ The control variables in Columns 1 & 2 in Table 5 are the same as those in Column 1 of Table 4. The control variables in Column 3 are the same as in Table 3, except we exclude *RET_VOL* since we now include *LARGE_PRICE_DROP*.²² However, we do not tabulate the coefficients for control variables for parsimony.

As expected and consistent with Column 1 of Table 4, the relation between $FV_RELIANCE$ and $EARn_VOL$ is positive (p < 0.01). A one standard deviation increase in fair value reliance is associated with a 0.0596 standard deviation increase in earnings volatility. Likewise, a one standard deviation increase in earnings volatility is associated with a 0.1688 standard deviation increase in the likelihood of a large stock price drop (p < 0.01). Finally, a one standard deviation increase in the likelihood of a large stock price drop (p < 0.01). Finally, a one standard deviation increase in the likelihood of a large stock price drop is associated with an increase in litigation risk of 0.48 percentage points (p < 0.01), or a 24% increase relative to the sample mean. Multiplying the path coefficients for the volatility effect, a one standard deviation increase in $FV_RELIANCE$ is associated with an *increase* in litigation risk of 0.005 percentage points, or a 0.25% increase relative to the sample mean.²³

For the primary channel, an increase of one standard deviation in *FV_RELIANCE* is associated with a *decrease* in litigation risk of 0.97 percentage points, or a 48.5% decrease relative to the sample mean. Thus, the total effect of *FV_RELIANCE* on litigation risk is *negative*, consistent with Table 3, with the primary effect dominating the volatility effect.

5. Additional tests

5.1. Changes in litigation risk around the passage of fair value standards

Our main tests indicate that firms that rely more on fair value standards face relatively lower litigation risk, and fair value restatements trigger fewer class action cases than other types of restatements. These results speak mostly to *relative* litigation risk. However, the passage of new fair value standards may increase the *absolute* risk of litigation. For example, when new fair value

²² Results remain the same if we follow Nagar et al.'s (2019) advice to keep control variables consistent across equations (untabulated).

²⁰ Inferences for Table 5 are unchanged if we drop industry fixed effects, year fixed effects, or both (untabulated).

 $^{^{21}}$ Standardization of the variables is why the coefficient on *FV_RELIANCE* in Column 1 of Table 5 is half the size of the coefficient on *FV_RELIANCE* in Column 1 of Table 4, where the variables are not standardized.

²³ We compute standard errors for these products using the delta method (Krull and MacKinnon, 2001; Sobel, 1987).

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Table 6

Passage of fair value accounting standards and litigation risk.

Independent Variables	Pr.	Dependent Variable: $Pr(SUED = 1)$		
	—	(1)		
Test Variable:	—	Coeff.	t-stat	
NEW_FV_STANDARDS	?	-0.1880	-5.37***	
Select Control Variable: NEW_STANDARDS		0.2913	7.40***	
Other Control Variables Industry Fixed Effects and Time Trend N Pseudo R-squared/ROC		YES YES 88,792 14.89%/0.80		

This table presents a multivariate regression analysis that examines litigation risk after the passage of FV accounting standards. The unit of analysis is firm-year observations. Control variables are the same as in Table 3 but suppressed for parsimony. All variables are defined in Appendix B. The model is a logistic regression with robust standard errors clustered by firm. ***, **, and * indicate significance at the 0.01, 0.05, and 0.10 levels, respectively, using two-tailed tests.

Table 7

Alternative measures of reliance on fair value accounting standards and litigation risk.

Independent Variables	Pr.	Dependent Variable: $Pr(SUED = 1)$					
	_	(1)	(1)		(2)		
Test Variables:	_	Coeff.	t-stat	Coeff.	t-stat		
FV_BS	?	-0.4833	-2.93***				
FV_RELIANCE_COUNT	?			-0.1018	-3.48***		
Control Variables		YES		YES			
Industry and Year Fixed Effects		YES		YES			
N		88,792		88,792			
Pseudo R-squared/ROC		15.41%/0.81		15.26%/0.80			

This table presents multivariate regression analysis examining whether firms with greater reliance on fair value accounting are more or less likely to be sued. The unit of analysis is firm-year observations. Control variables are the same as in Table 3 but suppressed for parsimony. All variables are defined in Appendix B. All models are logistic regression models with robust standard errors clustered by firm. ***, **, and * indicate significance at the 0.01, 0.05, and 0.10 levels, respectively, using two-tailed tests.

standards come online, litigation risk could increase for all (or most) firms.

To address this possibility, we examine how the passage of new fair value standards changes litigation risk. Specifically, we examine the effect of the enactment of fair value standards on the rate of accounting-related securities class actions for all firms. To do so, we estimate the following logistic regression using our full panel dataset from Section 4.1:

$$Pr(SUED = 1) = f(\alpha + \beta_1 NEW_FV_STANDARDS + \beta_2 NEW_STANDARDS + \beta[Controls])$$
(5)

where *SUED* for firm *i* in year *t* is an indicator variable equal to one if a GAAP-related securities class action is filed against firm *i* and the alleged class period contains fiscal year *t*. *NEW_FV_STANDARDS* equals the number of new fair value standards enacted in the prior three years and is the same value for all firms in year *t*. Likewise, *NEW_STANDARDS* equals the *total* number of new standards, both fair value and non-fair value, enacted in the prior three years (and, again, is the same value for all firms in year *t*). β_1 thus captures the *differential* effect of fair value standards on litigation rates compared to non-fair value standards. That is, β_2 measures the association between the passage of non-fair value standards and GAAP litigation, while β_1 captures whether this relation differs for fair value standards for fair value standards (see Fig. 1) and any trends in GAAP litigation.²⁵

Table 6 presents the results. The coefficient on *NEW_STANDARDS* (i.e., β_2) is positive and significant (p < 0.01). The marginal effect (untabulated) indicates that the passage of a new non-fair value standard is associated with an increase in GAAP litigation of 0.4 percentage points. Thus, it appears that the passage of new standards provides more fodder for plaintiffs to allege GAAP violations in the future. Importantly, the coefficient on *NEW_FV_STANDARDS* (i.e., β_1) is negative and significant (p < 0.01), indicating that the passage of new fair value standards is associated with a significantly lower increase in GAAP litigation compared to non-fair value

 $^{^{24}}$ The association between the passage of fair value standards and GAAP litigation is given by $\beta_1+\beta_2.$

²⁵ Inferences are the same if we drop the time trend control variable (untabulated).

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standards. The total effect of fair value standards ($\beta_1 + \beta_2$) is positive and significant (p < 0.01, untabulated). The marginal effect (untabulated) indicates the passage of a new fair value standard is associated with an increase in GAAP litigation of 0.1 percentage points for all firms, which is 75 percent smaller than the marginal effect for non-fair value standards.

Overall, the results in Table 6 indicate that passing a standard of any type is associated with more GAAP litigation overall – at least in the short term. Thus, if a standard setter is weighing the passage of a new fair value standard, these results suggest it could increase litigation risk. However, when comparing the impact of a new fair value standard versus the alternative involving historical cost accounting – which is the comparison at the heart of the policy debate – these findings suggest a smaller litigation risk impact for fair value accounting.

5.2. Alternative measures of fair value reliance

Table 7 presents the results of tests using measures of fair value reliance that differ from our main analyses. Column (1) uses a measure that captures ex-ante fair value reliance based on assets/liabilities subject to fair value measurement. Specifically, *FV_BS* is the sum of assets and liabilities subject to fair value measurement, on a recurring or non-recurring basis, scaled by total assets. For example, firm-years with more securities, derivatives, or goodwill will have higher values of *FV_BS*. Results using *FV_BS* yield a story similar to our main findings: fair value accounting is negatively associated with the incidence of litigation. An increase of one standard deviation in *FV_BS* is associated with a *decrease* in litigation risk of 0.17 percentage points based on marginal effects, or an 8.5% *decrease* relative to the sample mean.

Next, we use an alternative fair value reliance measure that is not a relative impact score and does not use de-meaning. Instead, this measure, which we call *FV_RELIANCE_COUNT*, captures the number of fair value standards a firm-year relies upon. For each firm-year, we search the firm's 10-K for fair value standards keywords (using the same standards and keywords as our main measure, *FV_RE-LIANCE*). If the firm mentions a standard's keywords at least once, then we deem that firm-year to rely upon that particular fair value standard and the *FV_RELIANCE_COUNT* measure increases by one.²⁶ *FV_RELIANCE_COUNT* has an intuitive interpretation as the number of fair value standards applicable to the firm in a given year. Thus, if a new fair value standard is passed that affects all firms, this measure would increase by one for all firms. Column (2) of Table 7 shows a significant negative association (p < 0.01) between *FV_RELIANCE_COUNT* and litigation risk. An increase of one standard deviation in *FV_RELIANCE_COUNT* is associated with a *decrease* in litigation risk of 0.59 percentage points, or a 29.50% *decrease* relative to the sample mean. These findings are again consistent with our main findings and suggest fair value standards are a relatively low litigation risk area.²⁷

6. Conclusion

We investigate the effect of fair value accounting standards on GAAP-related securities litigation risk. We find a significant negative relation between firms' reliance on fair value accounting and litigation. Further, we find no significant association between fair value accounting and misreporting or fraud, but we do find a significant positive association between fair value accounting and earnings volatility. In a path analysis, fair value standards appear to increase litigation risk through this higher volatility, but this effect is swamped by the strongly negative primary relation between fair value reliance and litigation risk – leading to overall lower litigation risk. Finally, we find evidence that the passage of all new accounting standards is associated with a higher risk of GAAP-related litigation for all firms in the immediate three years following the passage of a new standard – including fair value standards. However, the impact of new fair value standards is lower than non-fair value standards.

Overall, our results indicate fair value accounting is a relatively low litigation risk area of GAAP. While extant work has focused on equity valuation implications (Landsman, 2007), our study of litigation risk is informative to academics, practitioners, standard setters, and regulators because securities litigation plays an important disciplining role in a world where ownership is separate from control (Donelson et al., 2021). Our findings suggest that, going forward, it may be more difficult for shareholders to use securities litigation to hold managers accountable, given how GAAP increasingly incorporates more fair value than historical cost.

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 $^{^{26}}$ We choose not to include this as our main variable of interest as it does not account for differences in the precision of the keyword list and increases the likelihood of false negatives when standard keywords are mentioned but are not relied upon (e.g., implementation year). See Folsom et al. (2017) for a detailed discussion of the benefits of the relative importance-based reliance measure.

 $^{^{27}}$ As an additional untabulated test, we repeat our main tests examining the effect of *FV_RELIANCE* on litigation risk using post-FAS 157 data after eliminating all firm-years that report any level 1 or level 2 assets and find similar results. This suggests the negative relation between fair value reliance and litigation risk is not just attributable to accurately measured and liquid financial instruments like many investment securities or derivatives.

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APPENDIX A

Standards Used

This appendix lists the US GAAP standards we use in this study.

Parent Standar	d Year	Issued	FV	REV	Avg. F	RBC CMPLX	Topic Main Fair Value Provision (if applicable)
ARB 43 Ch 10:	1953		0	0	0	0	Property taxes
ARB 43 Ch 11a	1953		0	0	0	0	Government contracts
ARB 43 Ch 111	1953		Ő	0	ů 0	0	Government contracts
ARB 43 Ch 11c	1953		0	0	0	0	Government contracts
ARB 43 Ch 12	1953		0	0	0	0	Foreign currency
ARB 43 Ch 3a	1953		0	0	0	0	Working capital
ARB 43 Ch 3b	1953		0	0	0	0	Offsetting
ARB 43 Ch 4	1953		Ő	0	ů 0	0	Inventory
ARB 43 Ch 7a	1953		0	0	0	0	Capital - reorganization
							T T T O
Parent	Year	FV	REV	Avg.	CMPLX	Topic	Main Fair Value Provision (if applicable)
Standard	Issued			RBC			
ABB 43 Ch	1053	0	0	0	0	Stock dividends and	
7h	1555	0	0	0	0	enlite	
ARB 43 Ch	1953	0	0	0	0	Depreciation	
92	1988	Ū	0	0	0	Depreciation	
ARB 43 Ch	1053	0	0	0	0	Depreciation	
9h	1555	0	0	0	0	Depreciation	
ARB 45	1955	0	1	0	0	Long-term	
11102 10	1900	0	-	0	0	construction	
ARB 51	1959	0	0	3	0	Consolidation	
APB 2	1962	õ	0	0	0	Investment credit	
APB 4	1964	0	0	0	0	Investment credit	
APB 9	1966	0	0	1	0	Results of	
						operations	
APB 14	1969	0	0	0	1	Convertible debt	
APB 16	1970	1	0	4	1	Business	Net assets acquired are generally recognized at fair value under the
						combinations	purchase method
APB 17	1970	1	0	1	1	Intangibles and	Fair value of consideration used to measure intangibles; Impairments
						goodwill	based on "estimation of value and future benefits"
APB 18	1971	1	0	3	0	Equity method	Fair value is used as an impairment indicator for the equity method
APB 20	1971	0	0	2	0	Accounting changes	
APB 21	1971	1	0	1	0	Interest	All items are measured at fair value when notes are exchanged for
							goods/services
APB 23	1972	0	0	2	0	Taxes	
APB 25	1972	0	0	1	1	Stock compensation	
Parent	Year	FV	REV	Avg.	CMPLX	Topic	Main Fair Value Provision (if applicable)
Standard	Issued			RBC			
APB 26	1972	1	0	1	1	Debt retirement	Fair value used to value debt and calc. gain/loss
APB 29	1973	1	0	2	0	Nonmonetary	Fair value used to value assets and calculate gains/losses
						transactions	
APB 30	1973	0	0	1	0	Extraordinary items	
SFAS 2	1974	0	0	1	0	R&D	
SFAS 5	1975	0	0	1	0	Contingencies	
SFAS 7	1975	0	0	0	0	Startups	
SFAS 13	1976	1	0	4	1	Leases	Fair value of the leased item is used to determine if it is a capital
							lease
SFAS 15	1977	1	0	2	0	Troubled debt	Measure assets given to creditors at fair value
SFAS 16	1977	0	0	0	0	Prior period	
						adjustments	
	1077	1	0	3	0	Oil & gas	Use fair value to apportion sales and calculate gains/losses
SFAS 19	1)//						
SFAS 19 SFAS 34	1979	0	0	0	1	Capitalized interest	
SFAS 19 SFAS 34 SFAS 35	1979 1980	0 1	0 0	0 1	1 1	Capitalized interest Pension plan report	ing Measure investments at fair value
SFAS 19 SFAS 34 SFAS 35 SFAS 43	1979 1980 1980	0 1 0	0 0 0	0 1 1	1 1 0	Capitalized interest Pension plan report Compensated absen	ing Measure investments at fair value ces
SFAS 19 SFAS 34 SFAS 35 SFAS 43 SFAS 45	1977 1979 1980 1980 1981	0 1 0 1	0 0 0 0	0 1 1 0	1 1 0 0	Capitalized interest Pension plan report Compensated absen Franchise fees	ing Measure investments at fair value ces Fair value is used to measure bargain purchases and revenue on
SFAS 19 SFAS 34 SFAS 35 SFAS 43 SFAS 45	1979 1980 1980 1981	0 1 0 1	0 0 0 0	0 1 1 0	1 1 0 0	Capitalized interest Pension plan report Compensated absen Franchise fees	ing Measure investments at fair value ces Fair value is used to measure bargain purchases and revenue on PPE sold to franchisees

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Parent	Year	FV	REV	Avg.	CMPLX	Topic N	Iain Fair Value Provision (if applicable)
Standard	Issued			RBC			
SFAS 48	1981	0	1	1	0	Right of return	
SFAS 49	1981	0	0	1	0	Product financing	
SFAS 50	1981	0	0	0	0	Music industry	
SFAS 51	1981	0	0	0	0	Cable industry	
		-	-	-	-	,	
Parent	Vear	FV	REV A	lvo	CMPLX	Tonic	Main Fair Value Provision (if applicable)
Standard	Issued	1,	ICLU I	RBC	ONIT LA	Topic	Main Fun Value Frovision (ir applicable)
SFAS 52	1981	0	0 2	2	1	Foreign currency	
SFAS 53	1981	0	0 ()	0	Movies	
SFAS 57	1982	0	0 1		0	Related parties	
SFAS 60	1982	1	0 1	L	0	Insurance	Acquired real estate from mortgage/ title insurance measured
SFAS 61	1982	1	0 0)	0	Title plant	Fair value of consideration used to measure acquired title
51715 01	1702	1	0 0	,	0	The plane	asset
SFAS 63	1982	1	0 0)	0	TV industry	Fair value is used in advertising barter revenue and to
01110 00	1902	-	0 0		0	1 Children and a start of the s	measure losses on affiliation switches
SFAS 65	1982	1	0 1		0	Mortgage banking	Loans and securities held for sale measured at lower of cost or
		-			-		fair value
SFAS 66	1982	1	0 3	3	1	Real estate	Fair value of receivables used to measure losses
SFAS 67	1982	1	0 1	L	0	Real estate	Fair value of land and amenities used in cost allocations
SFAS 68	1982	1	0 1	L	0	R&D arrangements	Warrants issued measured at fair value
SFAS 71	1982	0	0 2	2	0	Utilities	
SFAS 77	1983	0	0 1	l	0	Transfer of receivables	
SFAC 5 & 6	1984	0	1 1	l	1	Revenue recognition	
SFAS 80	1984	0	0 1	L	1	Futures	
SFAS 86	1985	0	0 1	l	0	Software development	
SFAS 87	1985	1	0 4	ł	1	Pensions	Pension assets measured at fair value
SFAS 88	1985	0	0 ()	0	Settlements of defined	
						benefit pension	
SFAS 91	1986	0	1 1		0	Lending fees	
Parent Standard	Year Iss	ned F	V REV	/ Avg	RBC CN	APLX Topic	$M_{\rm ell} = \Gamma_{\rm ell} M_{\rm ell} = \Gamma_{\rm ell$
		ucu i	=		, 120 01		Main Fair Value Provision (if applicable)
SFAS 97	1987	0	0	1	1	Long-duration insurat	main Fair Value Provision (if applicable)
SFAS 97 SFAS 101	1987 1988		0 0	1 0	1 0	Long-duration insuran Utilities	nce contracts
SFAS 97 SFAS 101 SFAS 105	1987 1988 1990) 0) 0) 0	1 0 1	1 0 1	Long-duration insuran Utilities Off balance sheet risk	nce contracts
SFAS 97 SFAS 101 SFAS 105 SFAS 106	1987 1988 1990 1990	0 0 0 1) 0) 0) 0 . 0	1 0 1 4	1 0 1 1	Long-duration insura Utilities Off balance sheet risk OPEB	nce contracts Plan assets measured at fair value
SFAS 97 SFAS 101 SFAS 105 SFAS 106 SFAS 107	1987 1988 1990 1990 1991	0 0 0 1 1	0 0 0 0 0 0 0 0 0 0	1 0 1 4 1	1 0 1 1 1	Long-duration insura Utilities Off balance sheet risk OPEB Financial instruments	nce contracts Plan assets measured at fair value Disclose fair value of all financial instruments
SFAS 97 SFAS 101 SFAS 105 SFAS 106 SFAS 107 SOP 91-1	1987 1988 1990 1990 1991 1991	0 0 0 1 1 0	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	1 0 1 4 1 2	1 0 1 1 1 1 0	Long-duration insurat Utilities Off balance sheet risk OPEB Financial instruments Software revenue reco	Plan assets measured at fair value Disclose fair value of all financial instruments ognition
SFAS 97 SFAS 101 SFAS 105 SFAS 106 SFAS 107 SOP 91-1 SFAS 109	1987 1988 1990 1990 1991 1991 1992	0 0 0 1 1 0 0 0 0 0 0 0 0 0 0	$\begin{array}{cccc} 0 & 0 \\ 0 & 0 \\ 0 & 0 \\ 0 & 0 \\ 0 & 0 \\ 0 & 1 \\ 0 & 0 \end{array}$	1 0 1 4 1 2 4	1 0 1 1 1 1 0 1 1	Long-duration insurat Utilities Off balance sheet risk OPEB Financial instruments Software revenue reco Taxes	Main Fair Value Provision (if applicable) nce contracts Plan assets measured at fair value Disclose fair value of all financial instruments ognition
SFAS 97 SFAS 101 SFAS 105 SFAS 106 SFAS 106 SFAS 107 SOP 91-1 SFAS 109 SFAS 113	1987 1988 1990 1990 1991 1991 1992 1992	0 0 0 1 1 1 0 0 0 0 0 0 0 0	$\begin{array}{cccc} 0 & 0 \\ 0 & 0 \\ 0 & 0 \\ 0 & 0 \\ 0 & 0 \\ 0 & 1 \\ 0 & 0 \\ 0 & 0 \end{array}$	1 0 1 4 1 2 4 0	1 0 1 1 1 0 1 1 1 0 1 1	Long-duration insurat Utilities Off balance sheet risk OPEB Financial instruments Software revenue reco Taxes Reinsurance	Plan assets measured at fair value Disclose fair value of all financial instruments
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SFAS 97 SFAS 101 SFAS 105 SFAS 106 SFAS 107 SOP 91-1 SFAS 109 SFAS 113 SFAS 115 SFAS 116	1987 1988 1990 1990 1991 1991 1992 1992 1993 1993	C C C C C C C C C C C C C C C C C C C	0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 0 1 4 1 2 4 0 3 1	1 0 1 1 1 1 0 1 1 0 0 1 1 0 0 0	Long-duration insurat Utilities Off balance sheet risk OPEB Financial instruments Software revenue reco Taxes Reinsurance Investments Contributions	Main Fair Value Provision (if applicable) nce contracts Plan assets measured at fair value Disclose fair value of all financial instruments ognition Measure certain investments at fair value Recognize contributions at fair value
SFAS 97 SFAS 101 SFAS 105 SFAS 106 SFAS 107 SOP 91-1 SFAS 109 SFAS 113 SFAS 115 SFAS 115 SFAS 116 EITF 94-03	1987 1988 1990 1990 1991 1991 1992 1992 1993 1993 1993	C C C C C C C C C C C C C C C C C C C		1 0 1 4 1 2 4 0 3 1 1	1 0 1 1 1 0 1 1 0 0 1 1 0 0 1 1 1 0 0 1 1	Long-duration insurar Utilities Off balance sheet risk OPEB Financial instruments Software revenue rece Taxes Reinsurance Investments Contributions Restructuring costs	Main Fair Value Provision (if applicable) nce contracts Plan assets measured at fair value Disclose fair value of all financial instruments ognition Measure certain investments at fair value Recognize contributions at fair value
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SFAS 97 SFAS 101 SFAS 105 SFAS 106 SFAS 107 SOP 91-1 SFAS 103 SFAS 113 SFAS 115 SFAS 116 EITF 94-03 SFAS 119 Parent Standard SFAS 121	1987 1988 1990 1991 1991 1992 1993 1993 1993 1994 1994 Year Issued 1995	CC	0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0	1 0 1 4 1 2 4 0 3 1 1 0 8 RBC 1	1 0 1 1 1 1 0 0 1 1 1 0 0 0 1 1 1 0 0 0	Long-duration insurat Utilities Off balance sheet risk OPEB Financial instruments Software revenue reco Taxes Reinsurance Investments Contributions Restructuring costs Derivatives X Topic Impairments	Main Fair Value Provision (if applicable) nce contracts . Plan assets measured at fair value . Disclose fair value of all financial instruments ognition Measure certain investments at fair value Recognize contributions at fair value Main Fair Value Provision (if applicable) Measure impairment losses with fair value of long-lived
SFAS 97 SFAS 101 SFAS 105 SFAS 106 SFAS 107 SOP 91-1 SFAS 103 SFAS 113 SFAS 115 SFAS 116 EITF 94-03 SFAS 119 Parent Standard SFAS 121	1987 1988 1990 1991 1991 1992 1993 1993 1993 1994 1994 Year Issued 1995	CC	0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0	1 0 1 4 1 2 4 0 3 1 1 0 8 RBC 1	1 0 1 1 1 1 1 0 1 1 1 0 0 1 1 1 0 0 1 1 0 0 1 1 0 0 1 1 0 0 1 1 0 0 1 1 0 0 1 1 1 0 0 1 1 1 0 0 1 1 1 0 0 0 1 1 1 0 0 0 1 1 1 0 0 0 1 1 0 0 0 1 1 1 0 0 0 0 1 1 0	Long-duration insurar Utilities Off balance sheet risk OPEB Financial instruments Software revenue reco Taxes Reinsurance Investments Contributions Restructuring costs Derivatives X Topic Impairments	Main Fair Value Provision (if applicable) nee contracts Plan assets measured at fair value Disclose fair value of all financial instruments ognition Measure certain investments at fair value Recognize contributions at fair value Main Fair Value Provision (if applicable) Measure impairment losses with fair value of long-lived assets
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(continued)

Parent Standard	Year Issued	F۱	FV REV Avg. RBC		CMPL	Х Торіс	Main Fair Value Provision (if applicable)
SFAS 141	2001	1	0	3	1	Business combinations	Measure net assets acquired at fair value, including intangibles
Parent Standard	Year Issued	FV	REV	Avg. RBC	CMPLX	Торіс	Main Fair Value Provision (if applicable)
SFAS 142	2001	1	0	3	1	Intangibles and goodwill	Impairment of intangibles based on fair value
SFAS 143	2001	1	0	2	1	Asset retirement obligations	Measure obligation at fair value
SFAS 144	2001	1	0	3	1	Impairments	Measure impairment losses with fair value of long-lived assets
SFAS 146	2002	1	0	0	0	Restructuring costs	Measure restructuring liabilities at fair value
SFAS 150	2003	1	0	3	0	Liabilities vs. equity	Uses fair value to classify some instruments; Requires initial recognition at fair value often
SFAS 123r	2004	1	0	2	1	Stock compensation	Measure compensation at fair value
SFAS 154	2005	0	0	0	0	Error corrections and changes	
SFAS 141r	2007	1	0	2	1	Business combinations	Measure net assets acquired at fair value, including intangibles
SFAS 159	2007	1	0	0	0	Fair value option	Measure instrument at fair value
ASU 2012-01	2012	0	0	0	0	Health care: refundable fees	
ASU 2013-07	2013	1	0	1	0	Liquidation basis	Fair value is generally used to measure net assets in liquidation

Variable Definitions

- FV = one if the standard is a fair value standard (listed in Appendix D of SFAS 157)
- REV = one if the standard is a revenue standard
- RBC = a value between 0 and 4 from Mergenthaler (2009) measuring the presence of rules-based characteristics in standards
- CMPLX = one if the standard involves complex transactions following Donelson et al. (2012).

Sample Overview Keyword Search Terms

Our sample of GAAP standards starts with the body of accounting standards from Folsom et al. (2017). These standards include all non-superseded *Accounting Research Bulletins* (ARB) issued by the Committee on Accounting Procedures, *Accounting Principles Board Opinions* (APB) issued by the Accounting Principles Board, and *Statements of Financial Accounting Standards* (SFAS) issued by the FASB. We also include a few standards that are brought up in securities class actions but are not an ARB, APB, or SFAS. These include FASB Concept Statements 5 and 6 (which provide conceptual guidance on revenue recognition), Staff Accounting Bulletin 101 (issued by the SEC staff), Statement of Position 97-2 (covering software and issued by the American Institute of Certified Public Accountants), a few pronouncements issued by the Emerging Issues Task Force. Finally, we include any significant or major ASUs that were adopted after the SFAS regime. Finally, we exclude ASUs that: a) are part of the FASB's "simplification project" and allow a "practical expedient," b) only modify a sub-topic or clarify the scope of an ASC section or offer technical implementation guidance, c) defers the effective date of another ASU, d) is an "amendment" to a prior standard or ASU, e) is a technical correction to prior guidance, f) involves presentation or disclosure issues only, and g) involves only not-for-profit accounting.

Our standard keyword search terms are obtained from Folsom et al. (2017) but updated for new standards that have been issued since Folsom et al. (2017) was published. Our updated keyword list can be found at https://drive.google.com/open? id=1ddFTzN3SvXBv_CQpMD-bDeFSAzksh9oX.²⁸

APPENDIX B

Variable Definitions

²⁸ Like Folsom et al. (2017), the keyword list includes not only keywords unique to the standard but also the name of each standard. For example, to identify a case that alleges violation of SFAS 125, we search for: (SFAS {or} FAS {or} FASB {or} Statement of Financial Accounting Standards {or} Financial Accounting Standards Board) {up to two words} (125). We allow up to two words between standard prefix and number because there is no standardized method to cite standards in cases. For example, one case may cite "FAS 125," while another may cite "SFAS No. 125." If plaintiffs cite the Accounting Standards Codification (ASC) in lieu of numbered standard references, we use the cross-reference tool on the FASB's Codification website to map these references to numbered standards.

Variable	Definition
10K LENGTH	Natural log of the length of firm i's 10-K in year t
AAER	One if firm i has an Accounting and Auditing Enforcement Release against it for year t (zero otherwise)
AC SIZE	The number of directors on firm is audit committee for year t
BIG4	one if the external auditor for firm i's year t is a Big 4 auditor (zero otherwise)
BOARD INDEP	The percent of directors on firm i's board of directors for year t that are independent
BOARD SIZE	The number of directors on firm i's board of directors for year t
CAPEX_INTENSITY	Firm i's property, plant, and equipment for year t scaled by total assets for the same firm-year
CASH_VOL	The standard deviation of firm <i>i</i> 's quarterly cash from operations over years t to $t-2$
CEO_CHAIRMAN	One if the CEO for firm i's year t is also the chairman/woman (zero otherwise)
COMPLEX	Calculated the same as FV_RELIANCE but is calculated using complex standards rather than fair value standards (Donelson et al., 2012). See
	Appendix A for a detailed list of complex standards.
EARN_VOL	The standard deviation of firm i's quarterly earnings over years t to t-2
FPS	one if firm i in year t is part of the biotech (SIC 2833 to 2836 or 8731 to 8734), computer (SIC 3570 to 3577 or 7370 to 7374), electronics
	(SIC 3600 to 3674), or retail (SIC 5200 to 5961) industries (zero otherwise)
FV_BS	The sum of assets and liabilities that are subject to fair value measurement (Compustat items IST, DERALT, DERAC, TFVA, TFVL, OPTFVGR, PPENT, GDWL, INTANO) scaled by total assets
FV_RELIANCE	For each firm-year observation, we first calculate a relative importance score (Folsom et al., 2017) for each standard that an observation
	relies upon (except we subtract the sample mean and divide by the sample standard deviation instead of the yearly mean and standard
	deviation when calculating relative importance score). We identify whether an observation relies upon a standard by using Folsom et al.'s (2017) keyword approach on a firm-year's 10-K filing. We then aggregate all the relative importance scores for that firm-year for standards
	that are fair value standards per Appendix D of SFAS 157. See Appendix A for a detailed list of fair value standards.
FV_RELIANCE_COUNT	This measure increases by one for each fair value the firm relies upon. We identify whether a firm relies upon a standard using Folsom
	et al.'s (2017) keyword dictionary and searching the 10-K to identify if the standard's keywords are mentioned. If the standard's keyword or
	name is mentioned in the 10-K, then we code the firm-year observation as relying upon the standard. We then aggregate all the binary
	indicators for that firm-year for standards that are fair value standards per Appendix D of SFAS 157. See Appendix A for a detailed list of fair
	value standards.
INST_OWNERSHIP	The percent of firm <i>i</i> owned by institutional investors in year <i>t</i>
INT_DUMMY	One if <i>INT_INTENSITY</i> is missing or zero (zero otherwise)
INT_INTENSITY	Firm is R&D for year t plus firm is advertising expenditures for year t, all scaled by sales for the same firm-year
ISSUE	one it firm i issued equity during year ((zero otherwise)
LARGE_PRICE_DROP	The total number of days during firm is year t that experienced a 10% of more drop in stock price
LEVERAGE	Experim deut for min i ni year i scaled by total assets for the same innergen
MTR	The market value of equity for firm i in year t scaled by the book value of equity for the same firm-year
NONEV RELIANCE	The market value of equipt for mir in year to stated by the book value of equipt for the same interpretation of the same and the standards have and same standards have and same same same and the same same same same same same same sam
NON V_NEENINGE	Appendix D of SFAS 157. See Appendix A for a detailed list of fair value standards.
OPER_CYCLE	Natural log of one plus {365/[cost of good sold/inventory]} plus {365/[sales/receivables]}, all calculated for firm i s year t
OPER_CYCLE_DUMMY	One if OPER_CYCLE is missing or zero (zero otherwise)
RBC	calculated the same as FV_RELIANCE except that RBC includes all standards (not just fair value standards), and we multiply the RBC score
	for each standard with its score prior to aggregation (Donelson et al., 2012). See Appendix A for a detailed list of RBC scores.
RESTATE	One if firm <i>i</i> 's financial statements for year <i>t</i> are "Big R" restated subsequent to issuance (zero otherwise)
RET_SKEW	The skewness of firm <i>i</i> 's raw return over year <i>t</i>
RET_VOL	the standard deviation of firm <i>i</i> 's raw return over year <i>t</i>
REVENUE	Calculated the same as FV RELIANCE but is calculated using revenue standards rather than fair value standards (Donelson et al., 2012). See
DOA	Appendix A for a detailed list of revenue standards.
ROA	Net income for firm i in year t scaled by total assets for the same firm-year
SALE_VOL	The standard deviation of nrm <i>t</i> 's quarterly sales over years <i>t</i> to <i>t</i> -2
SALES_GROWIN	run rs current period sales limitos irin r s prior period sales, an scaled by nrm r s prior period sales
SIZE STOCK DETUDN	hattirat log of infinities to dial assets for year t
SUFD	One if firm is year is nart of the class period of a securities fraud class action per Stanford's Securities Class Action Classinghouse that
0010	alleres a GAAP violation (zero otherwise)
SUED DISMISSED	One if firm i's year t is nart of the class period of a securities fraud class action per Stanford's Securities Class Action Clearinghouse that
CCDD_DIGMIGOLD	alleges a GAAP violation and is eventually dismissed: zero if firm i's year t is not part of a securities class ration
SUED SETTLED	One if firm i's year t is part of the class period of a securities fraud class action per Stanford's Securities Class Action Clearinghouse that
	alleges a GAAP violation and is eventually settled; zero if firm i's year t is not part of a securities class action
TURNOVER	the aggregate trading volume of firm i's shares over year t scaled by total shares outstanding at the beginning of year t, all scaled by
	1,000,000 for expositional convenience.

APPENDIX C

Pearson Correlations

		(1)	(2)	(3)	(4)	(5)	(6)	Ø	(8)	(9)	(10)	dD	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29) (.	(3)) (32)	(33)	(34)	(35)	(36)	(37)	(38) (.	39) (4	0) (41	,
(1) SUED	1	.00																																							
(2) SUED_SETTLED	,	.00	1.00																																						
(3) SUED_DISMISSED	,	.00	1.00	1.00																																					
(4) RESTATE	0	.13	0.11	0.07	1.00																																				
(5) AAER	(.18	0.20	0.06	0.20	1.00																																			
(6) FV_RELIANCE	(.05	0.03	0.03	0.05	0.00	1.00																																		
(7) FV_BS	4	0.02	-0.03	0.00	0.02	-0.03	0.14	1.00																																	
(8) FV_RELIANCE_COUNT	τ	.03	0.02	0.02	0.03	0.00	0.76	0.09	1.00																																
(9) NEW_FV_STANDARDS		.01	0.02	0.00	0.04	0.02	-0.02	-0.13	-0.04	1.00																															
(10) FPS	(.03	0.03	0.01	0.03	0.02	-0.19	-0.04	-0.24	0.01	1.00																														
(11) SIZE	(.07	0.05	0.05	0.06	0.04	0.48	0.20	0.38	-0.10	-0.22	1.00																													
(12) SALES_GROWTH	(.01	0.02	0.00	-0.01	0.01	-0.04	-0.03	-0.03	0.03	0.07	-0.09	1.00																												
(13) STOCK_RETURN	4).04	-0.04	-0.02	0.04	0.01	0.01	-0.01	0.01	0.02	0.02	0.05	0.06	1.00																											
(14) RET_SKEW	4).08	-0.06	-0.05	-0.03	-0.02	-0.07	-0.05	-0.05	0.00	0.05	-0.24	0.04	0.22	1.00																										
(15) RET_VOL	(.03	0.03	0.01	-0.02	0.00	-0.18	-0.13	-0.16	-0.08	0.22	-0.54	0.10 -	0.04	0.37	1.00																									
(16) TURNOVER	(.11	0.09	0.07	0.05	0.04	0.07	0.03	0.01	-0.03	0.20	0.11	0.17	0.09	0.01	0.19	1.00																								
(17) ROA	4	0.01	-0.02	0.00	0.03	0.01	0.03	0.03	0.02	0.04	-0.18	0.34	-0.07 0	0.18	-0.16	0.44	-0.06	1.00																							
(18) BIG4	(.03	0.02	0.02	0.04	0.02	0.07	0.05	0.00	0.04	0.05	0.33	0.01	0.03	-0.12	-0.16	0.13	0.10	1.00																						
(19) ISSUE	(.03	0.03	0.01	0.03	0.02	0.01	-0.01	-0.02	0.07	0.16	0.06	0.08	0.07	-0.05	-0.06	0.18 -	-0.03	0.10	1.00																					
(20) NONFV_RELIANCE	(.07	0.06	0.04	0.06	0.02	0.66	0.12	0.68	-0.01	0.00	0.31	-0.02	0.02	-0.05	0.10	0.11 -	-0.03	0.09	0.07	1.00																				
(21) RBC	(.07	0.05	0.04	0.07	0.01	0.90	0.15	0.78	-0.01	-0.11	0.47	-0.04 (0.02	-0.08	0.18	0.10	0.03	0.09	0.04	0.84	1.00																			
(22) REVENUE	(.06	0.04	0.03	0.05	0.01	0.31	0.09	0.32	-0.02	0.21	0.05	0.01	0.02	-0.01	0.01	0.14 -	-0.07	0.01	0.11	0.67	0.51	1.00																		
(23) COMPLEX	(.07	0.05	0.04	0.06	0.01	0.84	0.16	0.71	-0.01	-0.11	0.45	-0.04 0	0.02	-0.08	0.16	0.10	0.02	0.13	0.04	0.80	0.90	0.47	1.00																	
(24) 10K_LENGTH		.08	0.06	0.04	0.06	0.01	0.59	0.21	0.49	-0.10	-0.05	0.50	0.01	0.01	-0.09	-0.18	0.17 -	-0.01	0.13	0.09	0.54	0.62	0.26	0.58	1.00																
(25) CASH_VOL	(.06	0.05	0.03	0.00	0.02	0.28	0.11	0.18	-0.04	-0.05	0.51	-0.05 (0.01	-0.08	-0.18	0.04	0.08	0.14	0.01	0.18	0.28	0.04	0.31	0.24	1.00															
(26) SALE_VOL	(.06	0.05	0.03	0.02	0.04	0.22	0.11	0.12	-0.03	-0.02	0.46	-0.03 (0.01	-0.08	0.16	0.06	0.08	0.14	0.01	0.15	0.22	0.03	0.25	0.21	0.74	1.00														
(27) OPER_CYCLE	(.01	0.00	0.00	0.00	0.01	0.00	-0.08	0.03	-0.01	-0.08	0.07	-0.08 -	0.02	0.00	0.04	0.05	0.08	-0.12 -	0.01	-0.06	-0.01 -	0.07 -	0.04 -	0.04	0.06	0.05	1.00													
(28) OPER_CYCLE_DUMMY	r (1.00	0.00	0.00	-0.01	-0.01	0.07	-0.06	0.06	-0.01	0.02	-0.03	0.09 (0.01	0.00	0.03	0.02 -	-0.09	0.04	0.01	0.08	0.06	0.06	0.06	0.07	-0.06 -	-0.09	-0.91	1.00												
(29) LOSSES		0.01	0.00	-0.01	0.00	-0.02	-0.04	0.00	-0.05	0.00	0.27	-0.44	0.18 -	-0.07	0.22	0.54	0.12	-0.53	-0.10	-0.01	0.06	-0.03	0.15	-0.03	0.03	-0.16	-0.14	-0.12	0.11	1.00											
(30) INT_INTENSITY		0.02	0.02	0.01	0.00	0.00	-0.04	-0.03	-0.05	-0.01	0.27	-0.12	0.08 -	-0.02	0.04	0.13	0.14	-0.19	0.00	0.10	0.10	0.03	0.22	0.02	0.03	-0.01	-0.03	-0.01	0.01	0.23 1	.00										
(31) INT_DUMMY		0.02	-0.01	-0.01	-0.03	0.00	0.10	-0.03	0.14	0.01	-0.30	0.05	0.00	-0.02	0.00	-0.03	-0.10	0.02	0.01	-0.07	-0.02	0.03 -	-0.15	0.03 ·	-0.01	-0.02	-0.03	-0.05	0.10	-0.07 -4	1.63 1.0	10									
(32) CAPEX_INTENSITY		0.03	-0.03	-0.01	0.01	-0.03	0.02	0.59	-0.02	0.01	-0.15	0.11	-0.03 -	-0.02	-0.03	-0.06	-0.04	0.05	0.09	-0.08	-0.07	-0.02 -	0.15	0.01	0.01	0.05	0.08	-0.06	-0.13	-0.05 -1	0.14 0.4	16 1.0	,								
(33) EARN_VOL		0.07	0.06	0.04	0.02	0.00	0.22	0.09	0.12	-0.05	0.00	0.16	-0.05 -	-0.08	0.04	0.19	0.12	-0.21	0.06	-0.06	0.16	0.21	0.07	0.22	0.19	0.22	0.20	-0.02	0.01	0.17 (.03 -0.	01 0.0:	1.00								
(34) LARGE_PRICE_DROP		0.02	0.02	0.01	-0.03	-0.01	-0.11	-0.10	-0.10	-0.08	0.12	-0.41	0.05 -	-0.16	0.21	0.83	0.07	-0.40	-0.15	-0.09	-0.07	-0.12 -	-0.02	-0.10	-0.14	-0.11	-0.10	-0.04	0.03	0.41 (.09 -0.	01 -0.0	3 0.20	1.00							
(35) AC_SIZE		0.01	0.00	0.02	-0.02	0.00	0.22	-0.01	0.19	-0.03	-0.18	0.40	-0.08 -	-0.02	-0.09	-0.22	-0.03	0.11	0.13	0.01	0.07	0.19 -	-0.09	0.18	0.17	0.25	0.21	0.18	-0.13	-0.23 -4	.10 0.4	18 0.0-	0.05	-0.13	1.00						
(36) BOARD_SIZE		0.05	0.04	0.03	0.02	0.03	0.30	-0.01	0.21	0.03	-0.13	0.68	-0.08	0.01	-0.14	-0.27	0.06	0.17	0.36	0.08	0.14	0.27 -	-0.06	0.29	0.27	0.43	0.38	0.14	-0.12	-0.31 -4	.07 0.4	14 0.0 [°]	0.14	-0.16	0.49	1.00					
(37) BOARD_INDEP		0.05	-0.05	-0.02	0.09	-0.06	0.04	0.06	0.06	-0.13	-0.04	-0.05	-0.02 -	-0.06	0.00	-0.08	-0.03	-0.03	-0.11	-0.01	0.01	0.04	0.02	0.01	0.07	-0.03	-0.05	0.06	0.00	0.04 -	.02 0.0	13 -0.0	6 -0.04	-0.05	0.16	-0.21	1.00				
(38) CEO_CHAIRMAN		0.02	0.01	0.02	0.04	0.01	0.16	0.09	0.13	0.06	-0.04	0.21	-0.04	0.04	-0.06	-0.16	0.05	0.08	0.01	0.04	0.13	0.17	0.09	0.16	0.15	0.14	0.11	-0.01	0.01	-0.12 -	.02 -0.	13 0.0	0.01	-0.12	0.04	0.08	0.10	1.00			
(39) INST_OWNERSHIP		0.05	0.03	0.03	0.06	0.03	0.24	0.19	0.15	-0.04	-0.02	0.59	-0.08	0.10	-0.23	-0.43	0.25	0.25	0.34	0.18	0.21	0.27	0.15	0.27	0.32	0.18	0.18	-0.02	-0.01	-0.32 -1	.01 -0.	07 0.03	0.00	-0.36	0.16	0.31	0.04	0.17	1.00		
(40) MTB		0.00	0.01	-0.01	0.00	0.02	-0.06	-0.04	-0.06	0.02	0.11	-0.07	0.11	0.18	0.03	0.00	0.11	-0.01	0.04	0.07	-0.02	-0.04	0.04 ·	-0.04	-0.03	0.02	0.01	-0.07	0.05	0.06 0	.07 -0.	04 -0.0	6 -0.06	-0.04	-0.03	0.00	-0.01	-0.01 ().02 1.	.00	
(41) LEVERAGE		0.00	0.00	0.00	0.02	0.00	0.21	0.26	0.16	-0.03	-0.20	0.26	-0.01 -	-0.02	-0.04	-0.10	-0.02	0.02	0.13	-0.07	0.10	0.15 -	-0.06	0.16	0.20	0.04	0.06	-0.10	0.03	0.01 -	.11 0.4	18 0.3	6 0.12	-0.05	0.03	0.10	-0.05	0.03 (0- 11.0	08 1.0	D
(42) NEW_STANDARDS		0.03	0.04	0.01	0.05	0.04	-0.14	-0.24	-0.14	0.85	0.04	-0.20	0.06	0.04	0.04	0.09	-0.06	-0.02	0.13	0.06	-0.10	-0.14 -	0.11	-0.11	-0.23	-0.08	-0.06	-0.04	0.00	0.05	.00 0.4	13 0.0-	-0.04	0.07	-0.04	0.11	-0.28	-0.02 -4	0.15 0.	.02 -0./	2

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This table presents Pearson correlations for our firm-year sample. Bold values indicate statistical significance at the 0.10 level or lower.

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