Context matters: The role of fair value footnote narratives

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Abstract

To increase the transparency of their fair value estimates, firms provide additional information in the notes to the financial statements, the quality of which has been challenged by financial statement users. We examine whether the narrative components of fair value footnotes, which should help users contextualise quantitative fair value information, affect investor uncertainty. Our results suggest that, incrementally to the volume of tabulated fair value footnote disclosures, fair value narratives can help investors to understand the measurement process of opaque fair value estimates, and assess their reliability. However, they can also increase investor uncertainty when boilerplate. Our findings shed new light on the communicative role of narrative information in the fair value footnotes, and inform accounting standard setters and financial statement preparers on how fair value measurement can become more understandable to investors.

Keywords: Fair value accounting; Fair value footnotes; Information uncertainty; Narrative disclosures; ASC 820; SFAS 157; Level 3; Boilerplate.

1. Introduction

The fair value hierarchy categorizes fair value estimates into three levels based on the observability of the inputs used in their measurement.[1] Accordingly, it gives the highest priority to observable (Level 1 and Level 2) inputs and the lowest priority to unobservable (Level 3) inputs. The subjectivity and complexity involved in the measurement of fair values that rely on unobservable inputs have resulted in financial statement users (hereafter, users) considering them as opaque, and demanding supplemental information to assess their credibility. Along this line, prior research shows that following the introduction of the fair value hierarchy, investors perceived Level 3 fair values as less reliable than Level 1 and 2 estimates (Song, Thomas, and Yi 2010; Riedl and Serafeim 2011).[2]

To improve transparency, the Financial Accounting Standards Board (FASB) and the International Accounting Standards Board (IASB) have mandated the provision of additional information about reporting firms' fair value measurement processes in the notes to the financial statements. These fair value footnote disclosures, which can be several pages long, contain narrative and tabulated (i.e., quantitative) components. Fair value narratives are a fundamental component of fair value reporting as they serve "to provide additional information that will help users of its financial statements to evaluate the quantitative information disclosed" (FASB 2011 par. 820-10-55-104). Although users claim that fair value narratives can contain value-adding information, they have also noted that they are not always meaningful (FASB 2018). Echoing these

[1] Fair value measurement standards (i.e., International Financial Reporting Standard [IFRS] 13 and Statement of Financial Accounting Standards [SFAS] 157) introduced the fair value hierarchy to increase the transparency of assets and liabilities reported at fair value.

[2] Primary users of financial statements are present and potential investors, lenders, and other creditors. In our analyses, we focus on investors. Thus, the terms "user" and "investor" are used interchangeably in our paper.

concerns, both the FASB and the IASB have taken action in recent years to improve their quality (FASB 2018; IFRS 2021). Nevertheless, there is little empirical evidence on whether the narrative components of the fair value footnotes fulfil their intended role, and their collective effect on investors' perceptions.

In this study, we investigate the effect of fair value footnote narratives (hereafter, fair value narratives) on investor uncertainty towards reported fair values. Disclosure theory suggests increased transparency can reduce investors' uncertainty about firm value (Verrecchia 2001). In the case of fair value footnotes, their narrative components should contribute to this outcome as they communicate how firms measure reported fair value estimates. Therefore, fair value narratives should increase transparency surrounding the fair value measurement process, and reduce investor uncertainty about opaque fair values. However, such a prediction is not without tension in our setting. A concern with footnote disclosures, noted by both the FASB and IASB, is that they contribute to the "disclosure problem" as they have been increasing significantly in volume over time, and contain too much irrelevant information (IASB 2013, FASB 2014). This concern is particularly salient in the case of fair value narratives, which are unstructured, add substantial volume to the fair value footnotes, and are costlier to process than tabulated fair value footnote disclosures. As a result, investors might focus on the latter, and discount or ignore fair value narratives if they are detracting.

To examine whether fair value narratives affect investors' perceptions about reported fair values, we adapt the framework of Riedl and Serafeim (2011). We take advantage of the three-tier classification system that the fair value hierarchy prescribes to investigate whether fair value narratives reduce investor uncertainty for fair value estimates of differing opacity, with a particular focus on Level 3 fair values. To test our hypotheses, we use a sample of U.S banks and insurance

firms that report Level 3 fair values between 2011 and 2019.[3] We focus on banks and insurance firms since they hold proportionally more assets and liabilities measured at fair value relative to firms in other industries, and have been used by prior literature as an appropriate setting to study the relevance of fair value footnote disclosures (Chung, Goh, Ng, and Yong 2017).

Our results suggest that lengthier fair value narratives are associated with reduced investor uncertainty for Level 3 fair value estimates. However, we do not document such a finding for Level 1 and Level 2 fair values, which are considered more reliable relative to Level 3 estimates, and are not prescribed the same level of supplementary disclosure by standard setters. These results suggest that, in total, fair value narratives can improve the firm's information environment, and help users better understand the fair value measurement process for opaque fair value estimates.

To better isolate the underlying mechanisms linking fair value narratives and investors' perceptions, we examine whether textual properties that signal the communicative value of fair value narratives are associated with changes in investor uncertainty for opaque fair value estimates. Prior literature argues that the decision-usefulness of fair values is conditional on the user's understanding of the fair value measurement process (Gaynor, McDaniel, and Yohn 2011). Along this line, users have expressed concerns that fair value narratives contain boilerplate information (FASB 2018). All else being equal, financial disclosure is not beneficial to users if it does not communicate new or useful information (Hoogervorst 2013). Accordingly, we should not expect boilerplate fair value narratives to improve users' perceptions regarding the reliability of Level 3 fair value estimates.

[3] With the introduction of Accounting Standards Update (ASU) 2011-04, U.S. standard setters require additional disclosures regarding the measurement of Level 3 fair values. Appendix B presents an example of such disclosures.

Consistent with our prediction, we do not find a reduction in investor uncertainty towards Level 3 fair values when fair value narratives are more boilerplate. Interestingly, we document the opposite, an increase in investor uncertainty. This result is not entirely unexpected as theory suggests that accounting information can also lead to increased user uncertainty (Kim and Verrecchia 1994; McNichols and Trueman 1994; Johnstone 2016). Nevertheless, this finding further highlights the importance of fair value narratives because when disclosures are not informative or value-adding, users might rationally overlook them (Blankespoor, deHaan, and Marinovic 2020).

We also examine if more specific fair value narratives are associated with reduced investor uncertainty. More specific narratives can enhance the reliability of accounting information since they are easier to understand, evaluate, and verify ex-post (Hope, Hu, and Lu 2016). Consistent with this argument, our results suggest that more specific fair value narratives improve the firm's information environment. Specifically, we show that fair value narratives' specificity is associated with reduced investor uncertainty for Level 3 fair value estimates. This result is consistent with prior literature, which argues that disclosure specificity should be inversely related to disclosure boilerplatedness (Cazier, McMullin, and Treu 2021), and allow users to assess better the fundamental risk of disclosing firms (Hope et al. 2016).

In further tests, we show that what we document does not appear to be driven by a mechanical relation between the fair value narratives and the quantitative information in the fair value footnotes. Specifically, we show that fair value narratives affect investor perceptions about Level 3 fair values even when we control for the volume of the numerical disclosures that are tabulated in the fair value footnotes. This finding is noteworthy and suggests that fair value narratives are integral to fair value reporting. Moreover, it implies that investors do not discount

fair value narratives relative to tabulated fair value information when assessing the reliability of opaque fair value estimates.

Our findings highlight the fundamental role that fair value narratives play in fair value reporting and contribute to several literature streams. By identifying conditions under which fair value narratives can improve investor perceptions of opaque fair values, we add to the debate on the informativeness of fair value footnotes (Chung et al. 2017; Bens, Cheng, and Neamtiu 2016), and extend the literature on fair value reporting that predominately focuses on quantitative disclosures (e.g., Song et al. 2010; Riedl and Serafeim 2011; Magnan, Menini, and Parbonetti 2015; Goh, Li, Ng, and Yong 2015). Furthermore, by showing that the direction of the effect that fair value narratives have on investor uncertainty is affected by their textual properties, we add to the emerging literature that examines the narrative components of financial statement notes (e.g., McMullin 2016; Mauritz, Nienhaus, and Oehler 2021; Ahn, Hoitash, and Hoitash 2022), and contribute to the literature that investigates how users contextualise financial information (Brown and Tucker 2011; Lang and Stice-Lawrence 2015; Hope et al. 2016; Cazier et al. 2021).

Our findings also have implications from a policy perspective, and can inform standard setters on how the narrative components of the fair value footnotes can better fulfil their defined role. Our results suggest that standard setters should take more actions to reduce the standardization of fair value narratives and increase their decision-usefulness. Along this line, the prescription of textual properties in the accounting standards that increase the communicative value of fair value narratives could result in more meaningful fair value footnotes.

The rest of the paper is organized as follows. Section 2 provides the hypothesis development. Section 3 outlines the sample selection process. Section 4 describes our research

design and the construction of the main variables of interest. Section 5 presents the empirical results, and Section 6 concludes.

2. Hypothesis development

Fair value measurement standards define fair value as "the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date".[4] They also define a three-level hierarchy based on the observability of the inputs used in the measurement of fair values. Specifically, Level 1 fair values represent estimates based on unadjusted quoted prices in active markets for identical assets and liabilities. Level 2 fair values are based on quoted prices in inactive markets for identical assets and liabilities or adjusted quotes for similar assets and liabilities in active markets.[5] Finally, Level 3 fair values rely on unobservable managerial assumptions and are subject to measurement error and moral hazard concerns. As a result, investors view Level 3 fair values with greater scepticism. Prior literature supports this argument as it documents a positive association between the opacity of fair value estimates and investor uncertainty (Riedl and Serafeim 2011).

Theory suggests that increased disclosure can benefit the disclosing firms (Diamond and Verrecchia 1991; Leuz and Verrecchia 2000; Verrecchia 2001). Along this line, prior research argues that supplemental information about the fair value measurement process can improve transparency, and reduce the opacity of fair value estimates (Laux and Leuz 2009; Riedl and Serafeim 2011; Barron, Chung, and Yong 2016). Prior literature also suggests that following the introduction of the fair value hierarchy, firms that reported more opaque fair value estimates were

[4] SFAS 157, which has been recodified as Accounting Standard Codification 820 (ASC 820), and IFRS 13 are the result of the convergence process between the FASB and the IASB, and are designed to be similar.
[5] Level 2 estimates can also use observable inputs other than quoted prices, such as yield curves and exchange rates.

more likely to provide voluntary disclosures that signal the reliability of their valuation processes in their fair value footnotes. Moreover, such voluntary disclosures seem to reduce investor scepticism regarding the credibility of Level 3 fair value estimates (Chung et al. 2017).

Prior empirical findings suggest that lengthier narratives are more informative (Lang and Stice-Lawrence 2015). Moreover, recent research suggests that using more words to provide context to quantitative footnote disclosures can reduce the likelihood of a firm receiving a comment letter over disclosure deficiencies by regulators (Ahn et al. 2022). Along this line, fair value narratives appear to increase in length following the issuance to registrants of comment letters that identify fair value reporting deficiencies (Bens et al. 2016), and this increase is greater when firm auditors possess fair value expertise (Ahn, Hoitash, and Hoitash 2020).

Fair value footnote disclosures should increase the quality and precision of the information available to users regarding the fair value measurement process (Riedl and Serafeim 2011). Therefore, we hypothesize that if fair value narratives fulfil their intended role, those of longer length should contain more information, and be associated with reduced investor uncertainty.

H1: Investor uncertainty associated with opaque fair value estimates is reduced for firms that provide lengthier fair value narratives.

The expectation that longer fair value narratives will result in reduced investor uncertainty is conditional on them possessing higher information content, and even then, not fully warranted. For starters, the benefits of expanded disclosures might be muted in rich information environments, such as the U.S (Leuz and Verrecchia 2000). Another concern regarding supplemental disclosures is that they might not be cost-efficient to process, leading to investors rationally ignoring them (Blankespoor et al. 2020). Furthermore, prior literature suggests that longer financial narratives

are not always beneficial since they can be associated with increased financial reporting complexity (e.g., Li 2008; Loughran and McDonald 2014).

Prior research argues that increased disclosure may not be useful to investors if it contains boilerplate information (Hoogervorst 2013; Lang and Stice-Lawrence 2015; Cazier and Pfeiffer 2017). Moreover, boilerplate text can increase disclosure processing costs if it makes it more difficult for the reader to separate relevant from irrelevant information (Blankespoor et al. 2020). Along this line, practitioners and users have expressed concerns that fair value footnotes often contain boilerplate information, which can inhibit their communicative value (FASB 2018).[6] Overall, we should not expect fair value narratives to benefit investors when they are uninformative or too costly to process. Thus, for our second hypothesis, we posit that fair value narratives should not lead to reduced investor uncertainty about opaque fair values when boilerplate.

H2: Investor uncertainty associated with opaque fair value estimates is not reduced for firms that provide more boilerplate fair value narratives.

Prior literature suggests that more specific narratives can facilitate the reader's understanding of firm risk, and are useful to investors (Hope et al. 2016). Furthermore, more specific narratives should also be more understandable and verifiable ex-post. Moreover, they should increase comparability since they better allow investors to identify similarities and differences across firms. Understandability, verifiability, and comparability are qualitative characteristics that enhance the reliability of accounting information (FASB 2010; IASB 2018).

[6] Prior research shows that narratives in Form 10-K reports that discuss fair value also exhibit high levels of boilerplatedness (Dyer, Lang, and Stice-Lawrence 2017).

As a result, we should expect more specific fair value narratives to reduce the uncertainty of the fair value measurement process. Thus, for our third hypothesis, we argue that fair value narratives that use more specific language should improve investors' perceptions regarding the reliability of opaque fair value estimates.

H3: Investor uncertainty associated with opaque fair value estimates is reduced for firms that provide more specific fair value narratives.

3. Sample selection

We leverage Business Reporting Language (XBRL) tags to harvest fair value footnote data. As a result, our sample starts in 2011, the year XBRL tags became widely available, and ends in 2019 to avoid confounding effects associated with the COVID-19 pandemic. We collect fair value footnotes from Form 10-K reports, which offer the most comprehensive set of fair value disclosures, and reduce investor uncertainty more than Form 10-Q reports (Bens et al. 2016; Barron et al. 2016). Moreover, we focus on U.S banks and insurance firms as they hold relatively more Level 2 and 3 fair values than firms in other industries (Chung et al. 2017). We further restrict our sample to firms with non-missing Level 3 fair values since firms that report them might differ from those that do not, both in terms of their risk profile and the narrative information they are required to provide in their fair value footnotes. Finally, we drop from our sample observations with no available data in the intersection of Compustat and CRSP.

Our sample consists of 2,064 firm-year observations (1,560 bank-year and 504 insurance-year observations). Table 1: Panel A details the sample selection process, whereas Table 1: Panel B decomposes the sample by fiscal year and financial sector (i.e., banks or insurance firms).

[Insert Table 1 here]

4. Research design and variable measurement

Our research design relies on the framework of Riedl and Serafeim (2011). They suggest that variation in information uncertainty arises from two sources: reliability differences between the fair value hierarchy levels, and issues relating to the firm's information environment. Riedl and Serafeim (2011) examine if firms with greater exposure to more opaque financial assets exhibit higher information uncertainty. To this end, they disaggregate assets into fair value (Level 1, Level 2, and Level 3) and non-fair value components. Subsequently, they derive the adjusted beta for each firm with respect to the decomposition of their assets through algebraic manipulations of the balance sheet identity (A=L+E).

To examine the effect of fair value narratives on investor uncertainty, we extend the framework of Riedl and Serafeim (2011) accordingly, and estimate the following regression model:

$$\begin{aligned}\text{Beta\_adj}_{i,t} = {} & a_0 + a_1\text{FVF\_Property}_{i,t} + \text{FVF\_Property}_{i,t} * (a_2\text{FVA1}_{i,t} + a_3\text{FVA2}_{i,t} \\ & + a_4\text{FVA3}_{i,t}) + a_5\text{FVA1}_{i,t} + a_6\text{FVA2}_{i,t} + a_7\text{FVA3}_{i,t} + a_8\text{NFVA}_{i,t} + a_9\text{LEV}_{i,t} \\ & + e_{i,t} \qquad (1)\end{aligned}$$

The dependent variable is *Beta_adj*, which serves as a proxy for investor uncertainty in the spirit of Lambert, Leuz, and Verrecchia (2007), who theoretically demonstrate that a firm's Capital Asset Pricing Model (CAPM) beta is a function of information uncertainty. We measure *Beta_adj* as the equity beta from the single-factor CAPM model based on firm-specific and value-weighted market returns. Similar to Chung et al. (2017), we limit the estimation window to the fiscal year

following the filing date of the firm's Form 10-K report. Moreover, we use weekly stock and market returns to ameliorate concerns regarding the effects of stock return volatility in the estimation process (Hou and Moskowitz 2005; Rield and Serafeim 2011).

A limitation of using the firm's beta as a proxy of investor uncertainty is that it does not entirely separate information uncertainty from other risk types (e.g., fundamental risk), which can vary directly across fair value hierarchy levels (Riedl and Serafeim 2011). To address this concern, we decompose beta into its two components, the correlation of the firm's stock return with the market return, and the ratio of the standard deviation of the firm's stock return to the standard deviation of the market return:

$$\text{Beta} = corr_{i,m} \frac{std_i}{std_m} \quad (2)$$

From the two components of the CAPM beta, $corr_{i,m}$ is more likely to capture investor uncertainty than $\frac{std_i}{std_m}$, which can also capture elements of fundamental risk. This assumption relies on finance theory (e.g., Morck, Yeung, and Yu 2000; Durnev, Morck, Yeung and Zarowin 2003; Jin and Myers 2006), which argues that in the absence of firm-specific information, market participants value firms based on available systematic information. As a result, the stock return of more opaque firms should exhibit a higher correlation with the market return. Thus, consistent with prior literature, we use the leverage-adjusted correlation (*Corr_adj*), which is $corr_{i,m}$ multiplied by the ratio of common equity to total assets, as an alternative dependent variable in our tests.

Depending on the hypothesis tested, *FVF_Property*, takes on the values of the following constructs: length, standardization, and specificity. *FV_LogLength* proxies for the length of the

fair value narratives, and is defined as the natural logarithm of the total number of words in the firm's fair value narratives. *FV_Standardized* proxies for the boilerplatedness of the fair value narratives, and is calculated as the number of words in standardized sentences in the fair value narratives, scaled by the total number of fair value narrative words. We define a sentence as standardized in the spirit of Mauritz et al. (2021) if it contains an eight-gram that occurs in at least 10 percent of sample observations in a fiscal year. This measure assumes that standardized phrases result in firm disclosures that are unlikely to contain firm-specific information. Finally, *FV_Specificity* is calculated as the proportion of specific words in the fair value narratives. We use Stanford's Named Entity Recognition (NER) algorithm, which has been used in the past to quantify specificity in financial narratives (e.g., Hope et al. 2016; Cazier et al. 2021), to identify specific references to seven mutually exclusive categories: date, location, money, organization, percent, person, and time.

Prior literature argues that textual measures of boilerplatedness might not be suitable for comparisons across firms due to their mechanical relation to disclosure length (Lang and Stice-Lawrence 2015). To control for such effects, we follow the methodology of Brown and Tucker (2011) and length-adjust *FV_Standardized* and *FV_Specificity* by regressing them on the first five polynomials of fair value narrative word count, and subsequently subtracting the fitted measure from the raw measure.[7]

Our primary variable of interest is the interaction term *FVA3*FVF_Property*. Specifically, if the textual properties of fair value narratives help to reduce (increase) information uncertainty associated with more opaque fair value estimates for investors, we should document $a_4 < 0$ ($a_4 >$

[7] The conclusions of our study are similar when we use the raw measures in our tests.

0) from Equation (1).[8] The independent variables include firm assets decomposed into Level 1 fair values (*FVA1*), Level 2 fair values (*FVA2*), Level 3 fair values (*FVA3*), assets not measured at fair value (*NFVA*), and the firm's debt financing (*LEV*), all scaled by total assets. Consistent with prior literature, we decompose only financial assets measured at fair value since exposures across the fair value hierarchy categories are substantially greater for assets relative to financial liabilities. This research design choice is also supported by experimental evidence, which suggests that investors consider asset fair values more relevant than the fair values of financial liabilities (Koonce, Nelson, and Shakespeare 2011). Variable descriptions are presented in Appendix A.

In all our regressions, we cluster standard errors at the firm level. To deal with the effect of outliers, we follow Song et al. (2010), and drop observations for which the studentized regression residuals are greater than 2. As a result, we end up with a different number of observations for each of our model specifications.[9]

5. Results

5.1 Descriptive statistics

Table 2 reports sample descriptive statistics for our main variables. The means of the proportion of Level 1 (*FVA1*), Level 2 (*FVA2*), and Level 3 (*FVA3*) assets to total assets are 0.03, 0.25, and 0.04, respectively. Evidently, Level 2 fair value estimates are our sample's most prominent fair value hierarchy class. Moreover, the proportion of non-fair value assets to total assets (*NVFA*) has a mean of 0.69. Furthermore, firm leverage (*LEV*) displays a mean value of

[8] The classification of fair value estimates into Level 2 versus Level 3 categories can be driven by managerial opportunism (Botosan, Carrizosa, and Huffman 2011). Nevertheless, we do not form any specific predictions for them as they are not prescribed the same level of footnote disclosures, in narrative format, as Level 3 estimates.
[9] Winsorizing continuous variables at the first and 99th percentiles does not affect the conclusions of our analyses.

0.85. Finally, the mean word count for the fair value narratives in our sample is 1,876 words (untabulated).

[Insert Table 2 here]

Table 3 presents Pearson correlations for our main variables. *Beta_adj* exhibits a positive correlation coefficient with all asset classes of the fair value hierarchy (*FVA1*, *FVA2*, and *FVA3*). *Corr_adj* exhibits a positive correlation with *FVA1* and *FVA2*, and a negative correlation, albeit of a small magnitude (-0.00), with *FVA3*. *FV_LogLength* is positively correlated with *FVA1*, and negatively correlated with *FVA2* and *FVA3*. *FV_Standardized* displays a negative correlation coefficient with *FVA1*, *FVA2*, and *FVA3*. Moreover, *FV_Specificity* is positively correlated with *FVA1* and *FVA2*, and negatively correlated with *FVA3*. Interestingly, we document a correlation of -0.14 between *FV_Standardized* and *FV_Specificity*. Thus, although it can be argued that these two variables capture aspects of disclosure informativeness and boilerplatedness, the descriptive evidence we present suggests that they represent distinct textual properties.

[Insert Table 3 here]

5.2 Multivariate test results

Table 4 reports results from estimating Equation (1), where we extend the framework of Riedl and Serafeim (2011) to examine the effect of the narrative components of the fair value footnotes on investors' uncertainty regarding opaque fair value estimates. *Beta_adj* (columns 1-2) and *Corr_adj* (columns 3-4) serve as our main proxies for investor uncertainty. Moreover, *FV_LogLength* proxies for the narrative information content of the fair value narratives. The underlying assumption is that longer fair value narratives contain a higher information content.

Columns 1 and 3 present results with no fixed effects, whereas columns 2 and 4 control for year and financial-sector (banks or insurance firms) fixed effects. Our primary variable of interest is the interaction term *FVA3*FV_LogLength*, which displays a negative and statistically significant coefficient estimate across all specifications. Thus, consistent with Hypothesis 1, lengthier fair value narratives appear to increase transparency for Level 3 fair value estimates. We do not find statistically significant results regarding *FVA1*FV_LogLength* and *FVA2*FV_LogLength*. This finding is not particularly surprising, given that both Level 1 and 2 fair values are considered more reliable, and are not prescribed the same level of narrative disclosures in the fair value footnotes as Level 3 fair values.

[Insert Table 4 here]

In Table 5, we examine if more boilerplate fair value narratives affect investor perceptions about the reliability of opaque fair values. Our initial prediction is that boilerplate fair value narratives should not add to the firm's information environment and will not reduce the opacity of Level 3 fair values (Hypothesis 2). *Beta_adj* (columns 1-2) and *Corr_adj* (columns 3-4) serve as our main proxies for investor uncertainty. Furthermore, *FV_Standardized*, captures the standardization (i.e., boilerplatedness) of the fair value footnote narratives. Interestingly, the interaction between *FVA3* and *FV_Standardized*, our main variable of interest, displays a positive coefficient estimate in all specifications. We document no significant result for *FVA1*FV_Standardized* or *FVA2*FV_Standardized*. These results imply that more boilerplate fair value narratives, which contain a lower level of firm-specific information, are associated with increased investor uncertainty for Level 3 fair values. Moreover, these findings comply with users' demands for actions that reduce the boilerplatedness of fair value footnotes by standard setters (FASB 2018).

[Insert Table 5 here]

In Table 6, we investigate if more specific fair value narratives reduce investor uncertainty. *FV_Specificity* captures the specificity of the fair value narratives. In columns 1 and 2, the dependent variable is *Beta_adj*. In columns 3 and 4, the dependent variable is *Corr_adj*. Both *Beta_adj* and *Corr_adj* serve as proxies for investor uncertainty. Columns 1 and 3 report results without fixed effects, whereas columns 2 and 4 include year and financial-sector (banks or insurance firms) fixed effects. The interaction term *FVA3*FV_Specificity*, which should capture whether more specific fair value narratives improve investor perceptions about the reliability of Level 3 fair value asset estimates (Hypothesis 3), displays a consistently negative coefficient estimate across all specifications, that is significant at the 1% level. Moreover, apart from column 2, where *FVA2*FV_Specificity* has a positive and significant (at the 10% level) coefficient estimate, interaction terms between *FVA1*FV_Specificity* and *FVA2*FV_Specificity* display no statistical significance. These results suggest that more precise fair value narratives help to reduce investor uncertainty for Level 3 fair value estimates.

[Insert Table 6 here]

Overall, our results provide evidence that the fair value narratives have the potential to affect users' perceptions about the reliability of Level 3 fair values. Moreover, we document similar results in terms of statistical significance and coefficient sign, irrespective of whether the dependent variable is *Beta_adj* or *Corr_adl*. Thus, what we document is more likely to be driven by information uncertainty rather than some other fundamental risk.

5.3 Controlling for the effect of tabulated fair value footnote disclosures

In Table 7, we investigate the effect of quantitative fair value disclosures, which refer to numerical disclosures tabulated in the fair value footnotes, on investor uncertainty about opaque fair values. Moreover, we examine if fair value narratives are value-adding and whether they incrementally inform investors about the reliability of opaque fair value estimates. Panels A and B present results where the dependent variable is *Beta_adj* and *Corr_adj*, respectively. For brevity, we only report results for tests that include year and financial sector fixed effects.

Column 1 of Table 7 presents results with *FV_LogNum*, which denotes the volume of tabulated (i.e., quantitative) disclosures in the fair value footnotes, and its interaction terms with *FVA1*, *FVA2*, and *FVA3* introduced in our model. In doing so, we test whether tabulated fair value footnote disclosures reduce investor uncertainty for reported fair values. Only the coefficient of *FVA3*FV_LogNum* is statistically significant (and negative). This finding suggests that tabulated fair value footnote information can reduce investor uncertainty regarding Level 3 fair values. Column 2 also introduces *FV_LogLength* and its interactions with *FVA1*, *FVA2*, and *FVA3* into our analyses. Interestingly, when we account for both the quantitative (*FV_LogNum*) and narrative (*FV_LogLength*) components of the fair value footnotes *FVA3*FV_LogLength* displays a statistically significant coefficient (negative), whereas *FVA3*FV_LogNum* does not.

In column 3 of Table 7 (Panel A), we report results where both *FV_LogNum* and *FV_Standardized*, as well as their interactions terms with *FVA1*, *FVA2*, and *FVA3*, are incorporated into our model. In this specification, *FVA3*FV_LogNum* exhibits a negative, but statistically insignificant coefficient. Moreover, the interaction term between *FV_Standardized* and *FVA3*, displays a positive and significant coefficient at the 1% level. In column 4, our fair value narrative variable of interest is *FV_Specificity*. The interaction term *FVA3*FV_LogNum*

exhibits a positive, but statistically insignificant coefficient estimate. Moreover, the coefficient of *FVA3*FV_Specificity* is negative and significant (at the 1% level).

In Table 7 Panel B, we use *Corr_adj* as our dependent variable. Results exhibit a similar motif to Panel A. In column 1, *FVA3*FV_LogNum* displays a statistically significant coefficient (negative) at the 1% level. In column 2, we document no statistically significant interaction term between *FV_LogNum* and *FVA3*. Moreover, *FVA3*FV_LogLength* displays a negative and significant coefficient. In column 3, the coefficient of *FVA3*FV_Standardized* is positive and significant. Interestingly, *FVA3*FV_LogNum* also exhibits a negative, and statistically significant coefficient. Finally, in column 4, *FVA3*FV_Specificity* has a negative and significant coefficient, whereas *FVA3*FV_LogNum* displays no significance.

[Insert Table 7 here]

Overall, the results presented in Table 7 imply that fair value narratives can affect investor uncertainty for Level 3 fair values incrementally to the volume of the numerical information tabulated in the fair value footnotes. These findings corroborate the evidence presented in Tables 4-6 and support the assertion that fair value narratives play a fundamental role in fair value reporting.

5.4 Robustness tests

In our primary analyses, we use weekly returns, and calculate *Beta_adj* and *Corr_adj* over the fiscal year following the Form 10-K report filing date. To determine the robustness of our main findings, we re-calculate *Beta_adj* and *Corr_adj* using daily, instead of weekly, returns and re-run our tests. We also alter the measurement window, and estimate our dependent variables over the

fiscal quarter following the Form 10-K report filing date (using both weekly and daily returns). Results (untabulated) are qualitatively similar to what we document in our primary analyses.

Next, we re-examine our main results using alternative specifications for *FV_Standardized* and *FV_Specificity*. Our primary measure of boilerplate disclosure (*FV_Standardized)* identifies a sentence as standardized if it contains an eight-gram that appears in at least 10 percent of all fair value narratives in a fiscal year. We find qualitatively similar results when we increase this cutoff to 20, 30, and 40 percent, respectively. Results are also robust when we measure standardization in the spirit of Lang and Stice-Lawrence (2015). Finally, we document results in support of our main findings when we measure specificity at the sentence level using FinBERT, a state-of-the-art large language model that is pre-trained on large-scale financial text (Huang, Wang, and Yang 2022), which we finetune for NER using the CoNLL-2003 English data set.

6. Conclusion

We examine the narrative components of fair value footnotes in Form 10-K reports and show that they can affect investors' perceptions about opaque fair values. Specifically, we show that lengthier fair value narratives are associated with reduced investor uncertainty for Level 3 fair value estimates. However, we document no such effect for Level 1 and 2 asset fair values, consistent with being considered more reliable by investors. Interestingly, we document an increase in investor uncertainty associated with Level 3 fair value asset estimates when fair value narratives are more boilerplate. Our findings, which are robust to controlling for the volume of tabulated numbers in the fair value footnotes, suggest that fair value narratives are an important instrument for communication with investors, and should not be drafted simply with regulatory compliance in mind.

Our study is subject to certain trade-offs and limitations. We rely on a single XBRL tag to identify fair value footnotes. Although this approach allows us to identify accurately and extract fair value footnotes without being affected by how firms describe them (e.g., title, order), firms may use different tags for their fair value footnotes. Moreover, we examine fair value narratives holistically, and do not break them down into components. As a result, we do make any claims about the effect specific parts of the fair value narratives have on investor uncertainty.

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Appendix A: Variable Definitions

Beta_adj	The coefficient from a regression of firm-specific weekly returns on value-weighted stock market returns over the fiscal year following the 10-K filing date, multiplied by the ratio of common equity to total assets. [Filing dates from EDGAR, market data from CRSP]
Corr_adj	The correlation, over the fiscal year following the 10-K filing date, between firm-specific weekly returns and value-weighted stock market returns, multiplied by the ratio of common equity to total assets. [Filing dates from EDGAR, market data from CRSP]
FV_LogLength	The natural logarithm of the total number words in the firm's fair value narratives (excluding tables). [Footnote data from Ahn et al. (2020) and EDGAR]
FV_Standardized	The number of words in standardized sentences in the fair value narratives, scaled by the total number of words found in the fair value narratives (excluding tables). A sentence is defined as standardized if it contains an eight-gram of words that occurs in at least 10 percent of the sample narratives in a fiscal year. The measure is length-adjusted according to Brown and Tucker (2011). [Footnote data from Ahn et al. (2020) and EDGAR]
FV_Specificity	The proportion of specific words in the fair value narratives (excluding tables). Constructed based on Hope et al. (2016), the measure is length-adjusted according to Brown and Tucker (2011). [Footnote data from Ahn et al. (2020) and EDGAR]
FV_LogNum	The natural logarithm of the total number of tabulated numbers in the firm's fair value footnotes. [Footnote data from Ahn et al. (2020) and EDGAR]
FVA1	Fair value assets based on Level 1 inputs, scaled by total assets. [From Compustat]
FVA2	Fair value assets based on Level 2 inputs, scaled by total assets. [From Compustat]
FVA3	Fair value assets based on Level 3 inputs, scaled by total assets. [From Compustat]
NFVA	Assets not measured at fair value, scaled by total assets. [From Compustat]
LEV	Total liabilities, scaled by total assets. [From Compustat]

Appendix B: Disclosures Regarding the Measurement of Level 3 Fair Values

BANK OF AMERICA CORP: Sensitivity of fair value measurements to changes in unobservable inputs [10]

Sensitivity of Fair Value Measurements to Changes in Unobservable Inputs

Loans and Securities

For instruments backed by residential real estate assets, commercial real estate assets and commercial loans, debt securities and other, a significant increase in market yields, default rates, loss severities or duration would result in a significantly lower fair value for long positions. Short positions would be impacted in a directionally opposite way. The impact of changes in prepayment speeds would have differing impacts depending on the seniority of the instrument and, in the case of CLOs, whether prepayments can be reinvested.

For auction rate securities, a significant increase in price would result in a significantly higher fair value.

Structured Liabilities and Derivatives

For credit derivatives, a significant increase in market yield, including spreads to indices, upfront points (i.e., a single upfront payment made by a protection buyer at inception), credit spreads, default rates or loss severities would result in a significantly lower fair value for protection sellers and higher fair value for protection buyers. The impact of changes in prepayment speeds would have differing impacts depending on the seniority of the instrument and, in the case of CLOs, whether prepayments can be reinvested.

Structured credit derivatives, which include tranched portfolio CDS and derivatives with derivative product company (DPC) and monoline counterparties, are impacted by credit correlation, including default and wrong-way correlation. Default correlation is a parameter that describes the degree of dependence among credit default rates within a credit portfolio that underlies a credit derivative instrument. The sensitivity of this input on the fair value varies depending on the level of subordination of the tranche. For senior tranches that are net purchases of protection, a significant increase in default correlation would result in a significantly higher fair value. Net short protection positions would be impacted in a directionally opposite way. Wrong-way correlation is a parameter that describes the probability that as exposure to a counterparty increases, the credit quality of the counterparty decreases. A significantly higher degree of wrong-way correlation between a DPC counterparty and underlying derivative exposure would result in a significantly lower fair value.

For equity derivatives, commodity derivatives, interest rate derivatives and structured liabilities, a significant change in long-dated rates and volatilities and correlation inputs (e.g., the degree of correlation between an equity security and an index, between two different commodities, between two different interest rates, or between interest rates and foreign exchange rates) would result in a significant impact to the fair value; however, the magnitude and direction of the impact depends on whether the Corporation is long or short the exposure.

[10] This is a disclosure example and does not refer to total fair value narratives.

Table 1

Sample Selection & Composition

Panel A: Sample selection process

Firms-year observations with non-missing Central Index Key (CIK) in the Compustat Fundamentals Annual database (2011 – 2019)	47,288
Non-Banking & non-insurance firms	(41,396)
Firms-year observations with missing Level 1, Level 2, and Level 3 fair values	(384)
Firms-year observations with Level 3 fair value assets equal to zero	(2,499)
Firm-year observations with missing CRSP data	(525)
Firm-year observations with missing fair value footnote data	(420)
Total sample observations (Fiscal years: 2011 – 2019)	**2,064**

Panel B: Sample composition by fiscal year and financial sector

Fiscal Year			
	Banking firms	**Insurance firms**	**N**
2011	151	52	203
2012	185	61	246
2013	186	63	249
2014	190	62	252
2015	186	58	244
2016	172	58	230
2017	167	51	218
2018	168	50	218
2019	155	49	204
Total	**1,560**	**504**	**2,064**

This table presents the sample selection process, and the sample composition. Panel A details the sample selection process. The sample is restricted to U.S banks and insurance firms as they hold proportionately more assets and liabilities measured at fair value relative to firms in other industries. Banks and insurance firms are identified based on the Fama and French 48-industry classification. The sample is further restricted to firms with non-missing Level 3 fair values that file Form 10-K reports with the SEC, and have available data in the intersection of Compustat and CRSP. Fair value footnotes are identified based on the standardized XBRL TextBlock tag "us-gaap:FairValueDisclosuresTextBlock". Panel B presents the sample composition by year (between 2011 and 2019), and financial sector (banks or insurance firms).

Table 2

Descriptive Statistics

Variable	N	Mean	Sd	P1	P25	P50	P75	P99
Beta_adj	2,064	0.133	0.127	-0.038	0.066	0.112	0.165	0.676
Corr_adj	2,064	0.068	0.057	-0.015	0.035	0.060	0.086	0.279
FV_LogLength	2,064	7.379	0.597	5.717	7.041	7.453	7.755	8.468
FV_Standardized	2,064	0.183	0.103	0.000	0.110	0.169	0.244	0.470
FV_Specificity	2,064	0.006	0.008	0.000	0.001	0.004	0.009	0.036
FVA1	2,064	0.030	0.064	0.000	0.000	0.002	0.032	0.311
FVA2	2,064	0.246	0.198	0.000	0.111	0.182	0.328	0.789
FVA3	2,064	0.037	0.136	0.000	0.001	0.003	0.011	0.862
NFVA	2,064	0.692	0.248	0.080	0.561	0.795	0.871	0.993
LEV	2,064	0.849	0.105	0.431	0.848	0.882	0.903	0.967

This table presents descriptive statistics for the main variables used in our analyses. The sample includes U.S banks and insurance firms between 2011 and 2019. The sample is further restricted to firms that file Form 10-K reports with the SEC and have non-missing fair values, in addition to non-zero Level 3 fair values. *Beta_adj* is the single-factor CAPM beta, multiplied by the ratio of common equity to total assets. *Corr_adj* is the correlation between firm-specific weekly returns and value-weighted market returns, multiplied by the ratio of common equity to total assets. *FV_LogLength* is the natural logarithm of the total number of words in the firm's fair value narratives. *FV_Standardized* is the number of words in standardized (i.e., boilerplate) sentences in the fair value narratives, scaled by the total number of fair value narrative words. *FV_Specificity* is the proportion of specific words in the fair value narratives. *FVA1* (*FVA2*) [*FVA3*] are assets reported at Levels 1 (2) [3], scaled by total assets. *NFVA* are assets not reported at fair value, scaled by total assets. *LEV* is the firm's total liabilities, scaled by total assets. Variable definitions are presented in more detail in Appendix A.

Table 3

Variable Correlations

	Beta_adj	*Corr_adj*	*FV_LogL.*	*FV_Stan.*	*FV_Spec.*	*FVA1*	*FVA2*	*FVA3*	*NFVA*	*LEV*
Beta_adj	1.000									
Corr_adj	0.781	1.000								
FV_LogLength	-0.119	-0.139	1.000							
FV_Standardized	-0.213	-0.272	-0.336	1.000						
FV_Specificity	0.090	0.133	-0.096	-0.142	1.000					
FVA1	0.182	0.270	0.029	-0.298	0.053	1.000				
FVA2	0.148	0.265	-0.071	-0.310	0.107	0.369	1.000			
FVA3	0.125	-0.002	-0.081	-0.010	-0.003	0.024	-0.143	1.000		
NFVA	-0.232	-0.281	0.122	0.309	-0.089	-0.546	-0.775	-0.442	1.000	
LEV	-0.611	-0.703	0.366	0.130	-0.116	-0.317	-0.258	-0.123	0.365	1.000

This table displays Pearson correlation coefficients for the main variables used in our analyses. *Beta_adj* is the single-factor CAPM beta, multiplied by the ratio of common equity to total assets. *Corr_adj* is the correlation between firm-specific weekly returns and value-weighted market returns, multiplied by the ratio of common equity to total assets. *FV_LogLength* is the natural logarithm of the total number of words in the firm's fair value narratives. *FV_Standardized* is the number of words in standardized (i.e., boilerplate) sentences in the fair value narratives, scaled by the total number of fair value narrative words. *FV_Specificity* is the proportion of specific words in the fair value narratives. *FVA1* (*FVA2*) [*FVA3*] are assets reported at Levels 1 (2) [3], scaled by total assets. *NFVA* are assets not reported at fair value, scaled by total assets. *LEV* is the firm's total liabilities, scaled by total assets. No variable outlier adjustments have taken place. Variable definitions are presented in more detail in Appendix A.

Table 4

The Effect of Fair Value Narrative Length on Investor Uncertainty

	(1) *Beta_adj*	(2) *Beta_adj*	(3) *Corr_adj*	(4) *Corr_adj*
FV_LogLength	0.033***	0.041***	0.018***	0.024***
	(3.4)	(4.0)	(4.5)	(5.5)
*FVA1*FV_LogLength*	-0.001	0.008	0.032	0.007
	(-0.0)	(0.1)	(0.8)	(0.2)
*FVA2*FV_LogLength*	0.004	-0.019	-0.009	-0.018
	(0.1)	(-0.6)	(-0.6)	(-1.2)
*FVA3*FV_LogLength*	-0.065***	-0.087***	-0.032***	-0.040***
	(-3.1)	(-4.0)	(-3.2)	(-4.1)
FVA1	0.017	-0.043	-0.266	-0.063
	(0.0)	(-0.1)	(-0.9)	(-0.2)
FVA2	0.036	0.260	0.087	0.175
	(0.1)	(1.0)	(0.7)	(1.4)
FVA3	0.539***	0.808***	0.207***	0.303***
	(3.3)	(4.3)	(2.8)	(3.9)
NFVA	0.045	0.161**	-0.003	0.043**
	(1.0)	(2.5)	(-0.2)	(2.1)
LEV	-0.610***	-0.556***	-0.315***	-0.290***
	(-7.5)	(-6.1)	(-9.3)	(-8.6)
Fiscal year fixed effects	No	Yes	No	Yes
Sector fixed effects	No	Yes	No	Yes
N	2,017	2,016	2,021	2,024
Adj R^2	0.392	0.421	0.434	0.472

This table presents results from regressions examining the effect of fair value narratives' length on investor uncertainty. In columns 1-2, the dependent variable is *Beta_adj*, the single-factor CAPM beta, multiplied by the ratio of common equity to total assets. In columns 3-4, the dependent variable is *Corr_adj*, the correlation between firm-specific weekly returns and value-weighted market returns, multiplied by the ratio of common equity to total assets. *FV_LogLength* is the natural logarithm of the total number of words in the firm's fair value narratives. *FVA1* (*FVA2*) [*FVA3*] are assets reported at Levels 1 (2) [3], scaled by total assets. *NFVA* are assets not reported at fair value, scaled by total assets. *LEV* is the firm's total liabilities, scaled by total assets. In each model, we drop observations with a residual higher than 2 (this can result in a different final number of observations for each model presented). Standard errors are clustered at the firm level. t-statistics are indicated (in parentheses) below the coefficients. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively. Variable definitions are presented in more detail in Appendix A.

Table 5

The Effect of Fair Value Narrative Standardization on Investor Uncertainty

	(1) *Beta_adj*	(2) *Beta_adj*	(3) *Corr_adj*	(4) *Corr_adj*
FV_Standardized	-0.138**	-0.150**	-0.034	-0.026
	(-2.3)	(-2.4)	(-1.1)	(-0.9)
*FVA1*FV_Standardized*	-0.263	-0.570	-0.172	-0.294
	(-0.3)	(-0.7)	(-0.4)	(-0.6)
*FVA2*FV_Standardized*	0.004	0.110	-0.204	-0.173
	(0.0)	(0.4)	(-1.5)	(-1.3)
*FVA3*FV_Standardized*	0.486***	0.526***	0.211***	0.168***
	(3.5)	(3.6)	(3.5)	(2.6)
FVA1	0.099	0.083	0.021	0.019
	(1.3)	(1.1)	(0.7)	(0.6)
FVA2	0.115***	0.146***	0.039***	0.053***
	(3.0)	(3.3)	(4.8)	(5.3)
FVA3	0.137***	0.212***	0.004	0.031
	(2.8)	(3.5)	(0.2)	(1.6)
NFVA	0.122***	0.190***	0.033**	0.060***
	(2.8)	(3.3)	(2.5)	(3.4)
LEV	-0.530***	-0.494***	-0.274***	-0.259***
	(-7.2)	(-6.3)	(-8.9)	(-8.3)
Fiscal year fixed effects	No	Yes	No	Yes
Sector fixed effects	No	Yes	No	Yes
N	2,016	2,018	2,030	2,030
Adj R^2	0.383	0.405	0.443	0.460

This table presents results from regressions examining the effect of fair value narratives' standardization on investor uncertainty. In columns 1-2, the dependent variable is *Beta_adj*, the single-factor CAPM beta, multiplied by the ratio of common equity to total assets. In columns 3-4, the dependent variable is *Corr_adj*, the correlation between firm-specific weekly returns and value-weighted market returns, multiplied by the ratio of common equity to total assets. *FV_Standardized* is the number of words in standardized (i.e., boilerplate) sentences in the fair value narratives, scaled by the total number of fair value narrative words. *FV_Standardized* is length-adjusted to control for its mechanical relation to fair value narrative length. *FVA1* (*FVA2*) [*FVA3*] are assets reported at Levels 1 (2) [3], scaled by total assets. *NFVA* are assets not reported at fair value, scaled by total assets. *LEV* is the firm's total liabilities, scaled by total assets. In each model, we drop observations with a residual higher than 2 (this can result in a different final number of observations for each model presented). Standard errors are clustered at the firm level. t-statistics are indicated (in parentheses) below the coefficients. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively. Variable definitions are presented in more detail in Appendix A.

Table 6

The Effect of Fair Value Narrative Specificity on Investor Uncertainty

	(1) *Beta_adj*	(2) *Beta_adj*	(3) *Corr_adj*	(4) *Corr_adj*
FV_Specificity	-0.427	-0.533	-0.204	-0.268
	(-0.5)	(-0.6)	(-0.5)	(-0.6)
*FVA1*FV_Specificity*	-7.342	-9.640	1.945	2.020
	(-0.8)	(-1.0)	(0.4)	(0.4)
*FVA2*FV_Specificity*	4.120	4.883*	1.710	1.917
	(1.5)	(1.7)	(1.4)	(1.5)
*FVA3*FV_Specificity*	-5.127***	-8.090***	-2.854***	-3.050***
	(-3.1)	(-5.3)	(-3.5)	(-5.0)
FVA1	0.102*	0.100*	0.015	0.026
	(1.7)	(1.7)	(0.6)	(1.0)
FVA2	0.104***	0.139***	0.032***	0.048***
	(2.8)	(3.2)	(3.6)	(4.4)
FVA3	0.109**	0.194***	-0.020	0.022
	(2.3)	(3.4)	(-1.4)	(1.2)
NFVA	0.098**	0.188***	0.010	0.053***
	(2.3)	(3.5)	(0.8)	(3.0)
LEV	-0.566***	-0.479***	-0.287***	-0.270***
	(-8.4)	(-7.8)	(-10.3)	(-9.6)
Fiscal year fixed effects	No	Yes	No	Yes
Sector fixed effects	No	Yes	No	Yes
N	2,017	2,015	2,026	2,027
Adj R^2	0.383	0.388	0.422	0.460

This table presents results from regressions examining the effect of fair value narratives' specificity on investor uncertainty. In columns 1-2, the dependent variable is *Beta_adj*, the single-factor CAPM beta, multiplied by the ratio of common equity to total assets. In columns 3-4, the dependent variable is *Corr_adj*, the correlation between firm-specific weekly returns and value-weighted market returns, multiplied by the ratio of common equity to total assets. *FV_Specificity* is the proportion of specific words in the fair value narratives, and is length-adjusted to control for its mechanical relation to fair value narrative length. *FVA1* (*FVA2*) [*FVA3*] are assets reported at Levels 1 (2) [3], scaled by total assets. *NFVA* are assets not reported at fair value, scaled by total assets. *LEV* is the firm's total liabilities, scaled by total assets. In each model, we drop observations with a residual higher than 2 (this can result in a different final number of observations for each model presented). Standard errors are clustered at the firm level. t-statistics are indicated (in parentheses) below the coefficients. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively. Variable definitions are presented in more detail in Appendix A.

Table 7

The Effect of Fair Value Narratives on Investor Uncertainty
Controlling for the Volume of Tabulated Fair Value Footnote Disclosures

Panel A: Dependent variable: *Beta_adj*

	(1)	(2)	(3)	(4)
FV_LogNum	0.037***	0.024**	0.034***	0.035***
	(4.0)	(2.4)	(3.6)	(4.0)
FV_LogLength		0.024**		
		(2.3)		
FV_Standardized			-0.108*	
			(-1.9)	
FV_Specificity				-0.356
				(-0.4)
*FVA1*FV_LogNum*	-0.000	0.057	0.012	0.022
	(-0.0)	(0.3)	(0.2)	(0.3)
*FVA2*FV_LogNum*	-0.015	-0.009	-0.011	-0.009
	(-0.5)	(-0.3)	(-0.4)	(-0.3)
*FVA3*FV_LogNum*	-0.063***	0.009	-0.018	0.018
	(-2.6)	(0.2)	(-0.6)	(0.6)
*FVA1*FV_LogLength*		-0.118		
		(-0.7)		
*FVA2*FV_LogLength*		0.002		
		(0.1)		
*FVA3*FV_LogLength*		-0.104**		
		(-2.4)		
*FVA1*FV_Standardized*			-0.535	
			(-0.6)	
*FVA2*FV_Standardized*			0.009	
			(0.0)	
*FVA3*FV_Standardized*			0.705***	
			(3.9)	
*FVA1*FV_Specificity*				-14.398
				(-1.4)
*FVA2*FV_Specificity*				4.952*
				(1.7)
*FVA3*FV_Specificity*				-12.581***
				(-4.8)
FVA1	-0.030	0.509	-0.147	-0.196
	(-0.1)	(0.8)	(-0.3)	(-0.4)
FVA2	0.127	0.069	0.092	0.055
	(0.6)	(0.2)	(0.4)	(0.3)
FVA3	0.456**	0.819***	0.218	-0.015
	(2.6)	(3.8)	(1.2)	(-0.1)
NFVA	0.111	0.096	0.105	0.076

	(1.4)	(1.2)	(1.4)	(1.0)
LEV	-0.560***	-0.582***	-0.558***	-0.631***
	(-5.5)	(-5.7)	(-5.6)	(-6.7)
Fiscal year fixed effects	Yes	Yes	Yes	Yes
Sector fixed effects	Yes	Yes	Yes	Yes
N	2,020	2,016	2,018	2,022
Adj R^2	0.425	0.440	0.437	0.457

Panel B: Dependent variable: *Corr_adj*

	(1)	(2)	(3)	(4)
FV_LogNum	0.020***	0.012***	0.020***	0.021***
	(5.2)	(2.7)	(4.8)	(5.6)
FV_LogLength		0.020***		
		(3.2)		
FV_Standardized			-0.006	
			(-0.2)	
FV_Specificity				-0.225
				(-0.6)
*FVA1*FV_LogNum*	0.012	0.031	0.014	0.011
	(0.3)	(0.4)	(0.4)	(0.3)
*FVA2*FV_LogNum*	-0.013	-0.009	-0.014	-0.016
	(-1.0)	(-0.6)	(-0.8)	(-1.3)
*FVA3*FV_LogNum*	-0.025***	0.008	-0.016**	-0.009
	(-2.8)	(0.7)	(-2.0)	(-1.0)
*FVA1*FV_LogLength*		-0.035		
		(-0.4)		
*FVA2*FV_LogLength*		-0.011		
		(-0.8)		
*FVA3*FV_LogLength*		-0.054***		
		(-3.9)		
*FVA1*FV_Standardized*			-0.319	
			(-0.7)	
*FVA2*FV_Standardized*			-0.208	
			(-1.6)	
*FVA3*FV_Standardized*			0.160**	
			(2.2)	
*FVA1*FV_Specificity*				1.022
				(0.2)
*FVA2*FV_Specificity*				1.980
				(1.6)
*FVA3*FV_Specificity*				-3.822***
				(-4.6)
FVA1	-0.116	0.043	-0.135	-0.116
	(-0.5)	(0.1)	(-0.5)	(-0.5)
FVA2	0.082	0.146	0.082	0.092

	(0.8)	(1.0)	(0.7)	(0.9)
FVA3	0.121*	0.339***	0.077	0.027
	(1.8)	(3.8)	(1.2)	(0.4)
NFVA	0.019	0.022	0.026	0.016
	(0.6)	(0.6)	(0.7)	(0.5)
LEV	-0.300***	-0.304***	-0.294***	-0.304***
	(-7.6)	(-7.8)	(-7.4)	(-8.0)
Fiscal year fixed effects	Yes	Yes	Yes	Yes
Sector fixed effects	Yes	Yes	Yes	Yes
N	2,024	2,024	2,025	2,023
Adj R^2	0.478	0.485	0.503	0.495

This table presents results from regressions examining the effect of the fair value footnote components (narrative and tabulated) on investor uncertainty. In Panel A, the dependent variable is *Beta_adj*, the single-factor CAPM beta, multiplied by the ratio of common equity to total assets. In Panel B, the dependent variable is *Corr_adj*, the correlation between firm-specific weekly returns and value-weighted market returns, multiplied by the ratio of common equity to total assets. *FV_LogNum* is the natural logarithm of the total number of tabulated numbers in the firm's fair value footnote. *FV_LogLength* is the natural logarithm of the total number of words in the firm's fair value narratives. *FV_Standardized* is the number of words in standardized (i.e., boilerplate) sentences, scaled by the total number of fair value narrative words. *FV_Specificity* is the proportion of specific words in the fair value narratives. *FV_Standardized* and *FV_Specificity* are length-adjusted to control for their mechanical relation to fair value narrative length. *FVA1* (*FVA2*) [*FVA3*] are assets reported at Levels 1 (2) [3], scaled by total assets. *NFVA* are assets not reported at fair value, scaled by total assets. *LEV* is the firm's total liabilities, scaled by total assets. In each model, we drop observations with a residual higher than 2 (this can result in a different final number of observations for each model presented). Standard errors are clustered at the firm level. t-statistics are indicated (in parentheses) below the coefficients. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively. Variable definitions are presented in more detail in Appendix A.