# Essays on Strategic Dimensions of Corporate Disclosure: Design and Outcomes


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# Declaration

I declare that, to the best of my knowledge and belief, this dissertation is my own original work. No part of it has been submitted for a degree at this or any other university. I further declare that Chapters 2 and 4 are based on a solo-authored working paper, and that Chapter 3 is based on a working paper co-authored with Dr. Mahmoud Gad. For Chapter 3, I was responsible for formulating the research ideas and questions, designing and executing the empirical analyses, and writing the chapters. The contributions of the co-author have been limited to the reasonable extent expected for a doctoral thesis at a research university in the United Kingdom. 

Achmad Faizal Azmi

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## Abstract

This thesis investigates strategic dimensions of corporate disclosure design and their effects on information outcomes. Chapter 2 examines how the level of disaggregation in target firms' disclosure of assets held for sale affects acquiring shareholders' decision-making in partial-firm acquisitions. I find that higher disaggregation is associated with stronger market reactions, suggesting that detailed disclosure reduces information uncertainty. Furthermore, I show that this effect is more pronounced when deal materiality is higher, when gains or losses on disposal are larger, and when alternative information sources are limited. Overall, the results demonstrate that disclosure granularity matters for decision-usefulness in complex transaction settings.

Chapter 3 investigates how General Counsel participation in top management affects the balance between strategic communication and legal risk management during earnings calls. I find that GCs play a dual role in shaping disclosure: their presence in top management is associated with higher net positive sentiment in scripted Management Discussion sections but increased hedging language and non-answer responses during unscripted Q&A sessions. Cross-sectional tests reveal that performance-based compensation and CEO alignment strengthen the optimistic messaging effect, while longer GC tenure and higher ex-ante litigation risk amplify cautious behavior. This study provides novel evidence on how legal professionals systematically influence corporate communication strategies.

Chapter 4 examines whether narrative alignment between acquirer and target executives in M&A announcements predicts subsequent goodwill impairment. Using textual analysis of M&A press releases, I find that greater semantic similarity between executive statements is associated with lower likelihood of goodwill impairment within the first year after deal completion. Furthermore, I show that this relationship is stronger when goodwill represents a larger share of the purchase price and in cross-industry acquisitions. The effect disappears for acquirers with high analyst coverage, indicating that external monitoring substitutes for the informational role of narrative alignment. This paper identifies a novel early predictor of goodwill impairment through textual analysis of deal announcements.

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# Chapter 1

# Introduction

Corporate disclosure has evolved significantly over the past two decades, driven by regulatory changes, technological advances, and shifting stakeholder expectations (Beyer et al., 2010; Blankespoor et al., 2020; Leuz and Wysocki, 2016). Within this evolving landscape, some critical developments have fundamentally reshaped how firms communicate with capital markets and manage financial reporting quality. First, ongoing debates about optimal disclosure granularity have intensified as standard-setters balance the costs and benefits of detailed reporting requirements, with researchers examining whether disaggregated information enhances decision-usefulness for various stakeholders (Dye and Sridhar, 2004; Chen et al., 2015; IASB, 2025). Second, the growing prominence of General Counsels (GCs) in corporate leadership has created new dynamics in how legal risk management intersects with firms' disclosure and strategic communication (Kwak et al., 2012; Hopkins et al., 2015). Third, the increasing sophistication of textual analysis techniques has enabled researchers to extract previously inaccessible insights from corporate narratives, revealing new dimensions of information quality and market communication (Loughran and McDonald, 2016; Bae et al., 2023).

Despite these developments, fundamental questions remain about how firms design effective disclosure. Effective disclosure requires strategic decisions across multiple dimensions. First, in partial-firm acquisitions, acquiring shareholders face significant information asymmetries about the specific assets being purchased. While accounting standards require target firms to disclose assets and liabilities held for sale, they provide discretion over the level of disaggregation, and empirical evidence remains limited on whether more detailed breakdowns of these disposal groups enhance decision-usefulness for acquiring shareholders evaluating the quality and valuation of partial-firm assets. Second, while GCs increasingly hold top management positions with significant performance-based compensation, little is known about how this dual role influences their approach to strategic communication versus legal risk management during critical investor interactions such as earnings calls, where scripted presentations allow legal review but unscripted Q&A sessions require real-time risk assessment (Rogers et al., 2011; Hopkins et al., 2015). Third, M&A

transactions frequently fail to deliver anticipated benefits, yet it remains difficult to determine whether poor outcomes stem from misaligned expectations at deal inception or from subsequent execution failures. While M&A press releases provide a unique opportunity to observe both acquirer and target executive statements about deal rationale and expected synergies, prior studies have yet to establish whether narrative alignment in these announcements can predict the likelihood of subsequent goodwill impairment (Ahern and Sosyura, 2014; Filip et al., 2022; Cao et al., 2023). Addressing these gaps is essential for advancing disclosure theory, informing regulatory policy, and understanding how firms balance transparency with strategic objectives.

This dissertation consists of three papers, each examining a distinct dimension of disclosure design. Chapter 2 investigates the level of detail dimension by examining how disaggregated disclosure of assets held for sale affects acquiring shareholder decision-making in partial-firm acquisitions. Chapter 3 explores the communication approach dimension by analyzing how GC participation in top management influences the balance between strategic narrative and legal risk management during earnings calls. Chapter 4 examines the consistency of messaging dimension by investigating whether narrative alignment between acquirer and target executives in M&A announcements predicts subsequent goodwill impairment.

Each essay examines a distinct empirical setting. The first essay examines acquiring shareholders' reactions to varying levels of asset disclosure disaggregation in partial-firm acquisitions, where target firms' disclosure choices provide variation in information detail. The second essay examines variation in executive team composition, specifically the presence and characteristics of GCs in top management, to analyze how legal expertise associates with communication strategies during earnings calls. The third essay analyzes M&A press releases where both acquirer and target executives communicate about the same transaction, enabling comparison of narrative alignment across parties.

In the first paper, "Relevance of Disaggregated Disclosure of Assets and Liabilities Held for Sale in Partial-Firm Acquisitions," I examine how varying levels of disclosure detail affect information transmission to acquiring shareholders. I analyze market reactions around the disclosure of assets and liabilities held for sale by target firms, comparing transactions where targets provide high versus low levels of disaggregation. I find that higher disaggregation is associated with stronger market reactions by acquiring shareholders, suggesting that detailed disclosure reduces information uncertainty for acquiring shareholders. This effect is more pronounced when deal materiality is higher, when the gain or loss on

disposal is larger, and when historical financial information is not disclosed in deal press releases. Additionally, I document that disaggregated disclosure is particularly informative when there are differences between amortized cost and fair value of assets being disposed of, highlighting the incremental value of fair value measurements in disposal contexts.

This paper contributes to three streams of literature. First, it adds to research examining the effects of disclosure granularity on information transmission and investor decision-making. While prior studies have focused primarily on income statement disaggregation (e.g., Chen et al., 2015; Holzman et al., 2021), this paper provides evidence that balance sheet disaggregation can enhance information transmission in partial-firm acquisition settings. Second, this paper contributes to the literature on disclosure in M&A transactions by examining pre-acquisition disclosure by sellers. While prior research focuses on post-acquisition disclosure by buyers in the form of purchase price allocation (Shalev, 2009; Zhang and Zhang, 2017), this study provides evidence on how sellers' disaggregation of assets and liabilities held for sale affects acquiring shareholder reactions. Third, this paper extends the fair value accounting literature by providing systematic evidence on the decision-usefulness of fair value measurements for operating assets in disposal contexts, complementing prior work that has focused primarily on financial assets or assets held for use (e.g., Goh et al., 2015; Sellhorn and Stier, 2018).

In the second paper, "Lawyers in the C-Suite: Balancing Strategic Narrative and Legal Risk in Earnings Calls," I examine how GC participation in top management affects corporate communication strategies during earnings calls. Earnings calls consist of two distinct sections: scripted Management Discussion remarks that allow legal review and unscripted Q&A sessions that require real-time risk assessment. I find that GCs play a dual role in shaping disclosure: their presence in top management is associated with higher net positive sentiment in the scripted Management Discussion section but increased hedging language and "no answer" responses during unscripted Q&A sessions. This pattern suggests that GCs guide optimistic messaging in legally-reviewed prepared remarks while enforcing caution when legal risks are higher during analyst-driven exchanges. Cross-sectional analyses show that performance-based compensation and CEO alignment strengthen the optimistic messaging effect, while longer GC tenure and higher ex-ante litigation risk amplify cautious behavior in the Q&A section.

This study contributes to three streams of literature. First, this study extends research on how top management composition affects corporate disclosure (Bamber et al., 2010; Ge et al., 2011; Bird et al., 2015) by documenting how General Counsels create systematic variation

in disclosure tone across scripted and unscripted earnings call segments. Second, by showing that GC influence depends on litigation exposure and communication context, this study helps reconcile mixed prior evidence on whether GCs improve or constrain disclosure quality (Kwak et al., 2012; Hopkins et al., 2015). Third, this study extends research on earnings call communication (Brochet et al., 2015; Davis et al., 2015) by demonstrating that disclosure tone reflects institutional guidance from legal professionals, not just individual managerial characteristics.

In the third paper, "Words and Numbers: Acquirer–Target Deal Narrative Alignment and Goodwill Impairment," I investigate how narrative alignment between deal parties predicts subsequent goodwill impairment. Using textual analysis of M&A press releases, I find that greater semantic similarity between acquirer and target executive statements is associated with a lower likelihood of goodwill impairment within the first year after deal completion, suggesting that alignment reflects shared assumptions about valuation and integration. Cross-sectional analyses reveal that this relationship is stronger when goodwill represents a larger share of the purchase price and in cross-industry acquisitions, where similarity is less likely to reflect common industry terminology. The effect disappears for acquirers with high analyst coverage, indicating that external monitoring substitutes for the informational role of narrative alignment.

This study contributes to three streams of literature. First, it addresses a gap in M&A research by measuring expectation alignment at deal announcement, enabling researchers to distinguish whether poor outcomes reflect misaligned initial expectations or execution failures (Malmendier and Tate, 2008; Alexandridis et al., 2013). Second, it contributes to research on acquirer-target alignment by introducing deal narratives as a distinct dimension of alignment. While prior studies examine cultural, social, or industry similarity (Hoberg and Phillips, 2010; Ishii and Xuan, 2014; Bereskin et al., 2018), this study focuses on transaction-specific communication alignment between deal parties. Third, it extends the goodwill impairment literature by identifying narrative alignment as a new explanatory factor, complementing prior emphasis on post-acquisition performance, accounting discretion, and deal pricing (Riedl, 2004; Chen et al., 2018; Ramanna and Watts, 2012; Gu and Lev, 2011).

Collectively, these three papers contribute to disclosure research by examining how firms design corporate communications and how these design choices shape the informational role of disclosure. Verrecchia's (2001) seminal framework identifies three categories of disclosure research, distinguishing between association-based research that examines how

disclosure affects investor beliefs and actions, discretionary-based research that examines managers' disclosure choices under endogenous incentives, and efficiency-based research that examines what information should be disclosed. The dissertation contributes to association-based and discretionary-based research by showing that disclosure outcomes depend not only on the information released but also on how it is structured, framed, and coordinated. The first paper shows that greater disaggregation in acquisition disclosures is associated with stronger market reactions, contributing to research on how disclosure granularity affects information processing (Chen et al., 2015; Dye and Sridhar, 2004). The second paper demonstrates that institutional roles within the firm, specifically legal expertise, influence how disclosure tone is managed across communication settings, contributing to research on how management characteristics shape disclosure choices (Bamber et al., 2010; Hopkins et al., 2015). The third paper shows that narrative alignment between transaction parties at deal announcement predicts subsequent goodwill impairment, contributing to research on the informational role of M&A announcement narratives (Cao et al., 2023; Filip et al., 2022).

Taken together, the three papers suggest that disclosure is shaped by strategic design choices that vary with context. The first paper examines how design affects information processing, the second examines how institutional factors influence design choices, and the third examines how consistency in messaging reflects underlying expectations about deal value. Together, they highlight that disclosure outcomes depend not only on what information is released but also on how it is structured, who shapes it, and whether it is coordinated across parties.

The rest of this dissertation is organized as follows. Chapter 2 presents the paper "Relevance of Disaggregated Disclosure of Assets and Liabilities Held for Sale in Partial-Firm Acquisitions." Chapter 3 presents the paper "Lawyers in the C-Suite: Balancing Strategic Narrative and Legal Risk in Earnings Calls." Chapter 4 presents the paper "Words and Numbers: Acquirer–Target Deal Narrative Alignment and Goodwill Impairment." Chapter 5 concludes this dissertation.

# Chapter 2

# Relevance of Disaggregated Disclosure of Assets and Liabilities Held for Sale in Partial-Firm Acquisitions

## 2.1 Introduction

Corporate asset divestitures including sale of some assets and entire subsidiaries are fairly common, making up approximately half of all mergers and acquisitions (M&A) transactions in the United States (Maksimovic and Phillips, 2001). Moreover, the value of net assets divested is economically significant, comprising on average around 9.8% of the acquirer's total assets.[1] Despite this, in contrast to reporting information on an entire corporation, the public information about a group of assets or a subsidiary that a target firm intends to sell is generally limited. In a full-firm acquisition, financial statements provide relatively detailed information about the financial position of the target firm that is relevant for the acquiring shareholders. Having disaggregated information about a firm's productive capacity allows acquiring shareholders to better understand the target's financial condition (Chen, 2018). On the other hand, detailed information about specific assets or subsidiaries is limited, as that information is usually aggregated within the financial statements. When information about partial-firm assets is aggregated, acquiring shareholders do not have clear information regarding the asset's productive capacity that is being acquired. Thus, it is unclear whether acquiring shareholders already incorporated all relevant information about assets being purchased during the deal announcement date.

This information gap presents a challenge for acquiring shareholders who must evaluate the quality, risk, and valuation of the specific assets being purchased. Without disaggregated disclosure, shareholders have limited visibility into the nature and composition of the divested assets, making it difficult to assess their contribution to future cash flows or strategic fit. Detailed information about the underlying assets would help reduce this uncertainty by giving shareholders greater insight into the nature and quality of the assets being acquired. This, in turn, would allow them to better evaluate potential synergies, forecast future performance, and assess whether the acquisition price appropriately reflects the economic value of the assets.

In this paper, I investigate whether the disaggregated disclosure of assets and liabilities held for sale provides more relevant information for acquiring shareholders regarding assets being acquired. After the assets purchase deal is announced, Statement of Financial Accounting Standards (SFAS) 144 and Accounting Standards Codification (ASC) 360 prescribe that target firms should reclassify and remeasure the disposal group being disposed of as assets and

[1] Based on author's own tabulation

liabilities held for sale by using the lower of carrying amount or fair value less cost to sell.[2] Moreover, target firms must present assets and liabilities held for sale separately on the face of the balance sheet, with additional details provided in the notes to the financial statements.[3] This is the first time the acquiring shareholders get the information about the value of net assets being acquired. However, while the accounting standards require disclosure of the major classes of assets and liabilities held for sale, they do not specify the degree of disaggregation within these classes. Firms may therefore present the major classes in an aggregated form with minimal detail or provide a more disaggregated breakdown of the components within each class for a disposal group.[4]

I argue that disaggregated assets and liabilities held for sale disclosure provide more relevant information for acquiring shareholders. Disaggregated disclosures of assets and liabilities held for sale provide acquiring shareholders with detailed insights into the asset base, which is essential for forecasting future cash flows and evaluating potential synergies. Future cash flows are critical as they form the foundation for assessments of investment returns, risks, and the strategic rationale for acquisitions (Damodaran, 2006). While aggregate disclosures may offer some insights, they often mask systematic differences among components, such as measurement bases and predictive value, making it harder to assess the productive capacity of acquired assets. Ohlson and Penman (1992) argue that balance sheet components differ in perceived measurement error, underscoring the need for detail in financial disclosures. By reducing uncertainties about the value of acquired assets, disaggregated disclosures enable acquiring shareholders to better evaluate whether expected synergies are appropriately priced into the deal. Such information ultimately helps acquiring shareholders make more informed decisions about partial-firm acquisitions.

However, it is also plausible that the disaggregation of assets and liabilities held for sale disclosure could yield no benefits for the acquiring shareholders. Prior analytical accounting studies show that disclosing more data is not necessarily beneficial for the user of financial statements (e.g., Dye and Sridhar, 2004; Gao and Liang, 2013). Moreover, one can

[2] SFAS 144 'Accounting for the Impairment or Disposal of Long-Lived Assets' was effective from January 1, 2002 through 2008 for transactions in our sample period. The Financial Accounting Standards Board subsequently codified these requirements as ASC 360-10 'Impairment or Disposal of Long-Lived Assets' effective in 2009. The core requirements for classification, measurement, and disclosure of assets held for sale remained substantially unchanged during this transition.

[3] The disclosure is usually provided one subsequent quarter after the deal announcement. The disclosure is continuously provided in the next quarters until the deal is completed. The example of timeline of partial-firm acquisition can be found in Appendix 2.2.

[4] See Appendix 2.3 for representative examples of high and low disaggregation practices observed in my sample, illustrating the variation that forms the basis for my empirical analysis.

argue that the information on the aggregate amount of assets and liabilities held for sale is sufficient for acquiring shareholders to evaluate the effectiveness of the acquisition decision. This is because the fair value of assets and liabilities held for sale already represents discounted future cash flows of net assets being acquired. Thus, whether the disaggregation of assets and liabilities held for sale is relevant for the acquiring shareholders is still an empirical question.

To test this prediction, I use absolute cumulative abnormal returns (ACAR) of acquirers for the days surrounding the disclosure of assets and liabilities held for sale by target firms. ACAR reflects the average change in investor expectations related to the economic importance of information disclosed (Rodrigues and Stegemoller, 2007). Thus, ACAR can be used to determine whether the information disclosed is important enough for the investors. To determine the disaggregation level of assets and liabilities held for sale disclosure, I manually check within the target's 10K or 10Q. If target firms only disclose the aggregate amount of assets and liabilities held for sale, then I code it as a low level of disaggregation disclosure. I only consider target firms to have a high level of disaggregation disclosure if they disclose each major item of assets and liabilities held for sale for each separate disposal group. Thus, acquiring shareholders can easily identify the fair value of target assets and liabilities held for sale.

I find that higher disaggregation of assets and liabilities held for sale disclosure is associated with higher ACAR. This result implies that more information is conveyed to acquiring shareholders regarding asset sales when target firms disclose the value of assets and liabilities held for sale in a clearly disaggregated manner. However, the positive effect is more muted when the historical information of assets being acquired is disclosed in the deal press release. Then, I find that the positive association between disaggregated assets and liabilities held for sale disclosure and ACAR surrounding the disclosure date is more pronounced when there is a higher deal price relative to acquirer's assets. This is because more information about the value of assets and liabilities held for sale is likely more important when the materiality of the deal price relative to the acquirer's size is higher. I also find that relative gain or loss on disposal amount to the acquirer's assets has a significant impact on the relation between disaggregated disclosure of assets and liabilities held for sale and ACAR surrounding the date of disclosure.

This paper makes contributions to three streams of literature. First, this paper contributes to the literature on disaggregation in accounting disclosure. Most studies in this literature mainly focus on the usefulness of disaggregation of income statement components (e.g., Esplin et al., 2014; Holzman et al., 2021). In general, prior studies conclude that greater

income statement component disaggregation leads to better-informed investors, under the condition that disaggregation separates income statement components with heterogenous characteristics (e.g., Chen et al., 2015; Holzman et al., 2021). Meanwhile, studies on the usefulness of balance sheet item disaggregation are limited. Thus, I contribute to this strand of literature by determining whether the disaggregation of balance sheet items for assets and liabilities held for sale is informative for acquiring shareholders in evaluating the acquisition decision.

Second, this paper contributes to the literature on regulatory disclosure during merger and acquisition. Most studies in this literature mainly focus on the post-acquisition disclosure that is mandated for the buyers in the form of purchase price allocation (Shalev, 2009; Zhang and Zhang, 2017). However, less emphasis is put on the pre-acquisition disclosure by sellers in the form of fair value for assets and liabilities held for sale. I contribute to this literature by providing empirical evidence on whether there should be a rigid rule on the aggregation of assets and liabilities held for sale. This finding is relevant for SEC, which is particularly interested in regulating the disclosure of value-relevant information in the context of merger and acquisition.

Finally, this paper contributes to the literature on the relevance of fair value accounting. Prior studies on fair value relevance mostly focus on the fair value for financial assets (e.g., Song et al., 2010; Goh et al., 2015; Lawrence et al., 2016), given that the use case of fair value is more dominant within this type of asset. Moreover, studies on fair value measurement for operating assets mostly look at the fair value for operating assets held for use (e.g., Sellhorn and Stier, 2018; Henderson, 2021). Thus, this paper provides first systematic evidence on the decision-usefulness of fair value measurements for assets in disposal contexts.

## 2.2 Hypothesis Development

During the final stage of the acquisition process, potential acquirers have more access to the target asset's private information to verify the accuracy of the target asset's fair value (Chen et al., 2018). However, in comparison to acquirer's managers, acquiring shareholders do not know precisely the value of assets that will be acquired. This is because public information regarding the quality and the value of partial assets is inherently limited, given that the accounting standards requirement for partial assets is less stringent relative to the firm as a whole. Moreover, acquirer's managers could only disclose the value of assets being acquired when the deal was completed. While there is an option to voluntarily disclose more information

about the assets being acquired, the acquirer still does not have certainty about the value of assets being acquired before the deal is completed. Disclosing forward-looking information about these assets could be speculative and potentially misleading if the final deal terms of acquired assets differ from the initial deal announcement. Thus, there is an information asymmetry between acquiring shareholders and acquirer's managers during the partial-firm acquisition process, and naturally there is a demand for more information about assets being acquired.

Prior studies suggest that financial disclosures can provide information relevant to peer firms (e.g., Beatty et al., 2013; Savor and Wilson, 2016). The disclosure of financial statements could provide correlated information, thus allowing peer firms to do cross-learning (Foster, 1981). During the asset acquisition process, the acquirer and target's fundamentals become a peer group, as some portion of the target's asset will become part of the asset base of acquirers in the near future. Therefore, any specific information about target assets being disposed of will be correlated with the performance of the acquirer after deal completion. In this case, there is a high possibility of information spillover of the target's financial disclosure to the acquirer's shareholders, because acquiring shareholders perceive the target's financial disclosure contains relevant information to evaluate the acquisition decision. Specifically, acquiring shareholders are interested in the value of assets and liabilities being acquired in the form of assets and liabilities held for sale.

However, SFAS 144 and ASC 360 provide some level of discretion for target firms in the disclosure format of assets and liabilities held for sale. While target firms theoretically benefit from more detailed disclosure via reduced information asymmetry (Guo et al., 2004), proprietary cost could arise if that additional information would be beneficial for rival firms or if such disclosure could attract shareholders litigation (Ma, 2020). Thus, some firms decide to aggregate the value of assets and liabilities held for sale under the statement of financial position without disclosing the details of major assets and liabilities in the notes. Moreover, while some firms disclose the details of major assets and liabilities in the notes, they could aggregate several different disposal groups into one line item, making it difficult to identify the value of specific items of each disposal group. Ohlson and Penman (1992) argue that balance sheet components differ in perceived measurement error, underscoring the need for detail in financial disclosures. Thus, without knowing the details of each item in assets and liabilities held for sale, acquiring shareholders cannot accurately evaluate the acquisition decision.

Moreover, acquiring shareholders have an incentive to estimate the expected synergy from the asset acquisition. To estimate the expected synergy, the acquiring shareholders need to be able to forecast the net present value of the cash flows that will result from improvements made when the target assets are acquired (Eccles et al., 1999). Meanwhile, the asset base is an important predictor of future cash flows (Bai et al., 2016). Even though aggregate asset value can provide important information, there is a systematic difference between each individual asset because of differences in measurement base. For instance, in terms of non-current assets, property, plant and equipment (PPE) and intangible assets possess different measurement bases, in which the former uses systematic depreciation and the latter uses impairment testing. Moreover, Richardson et al. (2005) conclude that less reliable accruals lead to lower earnings persistence, which reduces the ability of acquiring shareholders to forecast future cash flow of assets being acquired. As a result, it is necessary for acquiring shareholders to know the separate amount between each component of assets and liabilities to accurately estimate the net present value of the future cash flow of the assets being acquired. Thus, I argue that information on assets and liabilities held for sale becomes more relevant for acquiring shareholders under the condition that there is a detailed disclosure of each major item of assets and liabilities held for sale for each different disposal group.

To examine whether specific information is relevant for investors, prior studies use absolute cumulative abnormal returns (Bailey et al., 2006). ACAR indicates the average change in investor expectations related to the economic importance of public information. Moreover, ACAR measures the magnitude of an event without regard to whether investors perceive the event as good or bad (Rodrigues and Stegemoller, 2007). In the context of the acquisition process, the disclosure of assets and liabilities held for sale reveals the true value of target assets that are being acquired, facilitating the scrutiny process of acquiring shareholders to evaluate the acquisition decision by the managers. Thus, I expect that a higher disaggregation level of assets and liabilities held for sale disclosure by target firms could lead to higher ACAR of acquirers at the date of the assets and liabilities held for sale disclosure.

However, it is also plausible that the disaggregation of assets and liabilities held for sale disclosure could be less relevant for the acquiring shareholders. First, prior analytical accounting studies show that disclosing more data is not necessarily beneficial for the user of financial statements (e.g., Dye and Sridhar, 2004; Gao and Liang, 2013; Liang and Zhang, 2019). This is because adding more data makes it more difficult for users to process information as they have limited resources (Lu, 2022). Second, because target firms have discretion over

the level of detail provided in assets and liabilities held for sale disclosure, this information tends to be less standardized, making it more difficult for users to interpret and compare across firms (Blankespoor et al., 2020; Hinson et al., 2023). Third, specific information about the division or business being sold may already be available to acquiring shareholders through the target's segment reporting. In such cases, disaggregating the held-for-sale disclosure may not provide meaningful incremental information. Finally, for acquisition decisions, the aggregate fair value of net assets held for sale could already offer sufficient insight for acquiring shareholders to assess the risk of overpaying for target assets. This is particularly important since overpayment is a central concern for acquiring shareholders and a key driver of value destruction in acquisitions (Harford et al., 2012). Therefore, it is still unclear ex-ante whether the disaggregation of disclosure of assets and liabilities held for sale could give incrementally relevant information for acquiring shareholders. As a result, I develop a hypothesis in the null form:

H1: *Higher disaggregation of assets and liabilities held for sale disclosure has no effect on stock market reaction of acquiring shareholders around the release of assets and liabilities held for sale disclosure*

## 2.3 Research Design

### 2.3.1 Sample Selection

I obtain data on partial-firm acquisition transactions from the Refinitiv Eikon database. I filter the assets transaction data by choosing a deal transaction defined as "Acquisition of assets" or "Acquisition of certain assets". I select all completed transactions from 1 January 2002 to 31 December 2022 by public firms incorporated in the US. Following prior studies on asset divestiture (e.g., Owen et al., 2010), I select only transactions with a deal value of more than $50 million. I delete transactions that involve joint ventures, asset swaps, LBOs, privatizations, reverse takeovers, and bankrupt asset sellers. I delete transactions in which the financial data of the acquirer and target firms are not available on CRSP and Compustat databases. I delete transactions in which either the acquirer or the parent of target firm is a non-US firm. I delete transactions in which either the acquirer or the parent of target firm is a private firm. I also ensure that the date of disclosure of assets and liabilities held for sale do not coincide with any SEC-related disclosure filed by acquirers. These requirements reduce the sample size to 272 transactions. Table 2.1 describes the sample selection process.

### 2.3.2 The Information Relevance of Disaggregated Assets and Liabilities Held for Sale

To examine the first hypothesis, I estimate the following multivariate regression:

$$ACAR_{it} = \alpha_0 + \alpha_1 Disaggregate_{it} + \alpha_2 AqSize_{it} + \alpha_3 Deal_{it} + \alpha_4 Leverage_{it} + \alpha_5 Tobin_{it} + \alpha_6 ACARAnnounce_{it} + \alpha_7 CARAnnounce_{it} + \varepsilon_{it} \quad (1)$$

The dependent variable is $ACAR_{it}$, which is absolute cumulative abnormal return. I follow Moeller et al. (2004) and Phalippou et al. (2015) and estimate acquirer returns as cumulative abnormal returns (CAR) from day −1 to 1, where day 0 is the disclosure of assets and liabilities date. Abnormal returns are generated as the difference between normal returns and benchmark returns predicted from the market model of which parameters are estimated based on daily stock returns and CRSP value-weighted returns as the market returns during the period of 252 trading days, (−267, −15). ACAR reflects the average change in investor expectations related to the economic importance of information disclosed. Thus, ACAR can be used to determine whether the information disclosed is relevant enough for the investors.

The main variable of interest is $Disaggregate_{it}$, which is a dummy variable with the value of 1 (0) if there is a high (low) level of disaggregation of disclosure for assets and liabilities held for sale. I manually code each disclosure of assets and liabilities held for sale contained within either 10K or 10Q of target firms. I give the value of 1 only if the disclosure of assets and liabilities held for sale is sufficiently disaggregated, in which the acquiring shareholders could identify each major item in assets and liabilities for each separate disposal group. The examples of each variety of disaggregation of assets and liabilities held for sale disclosure can be found in Appendix 2.3.

I employ control variables based on prior studies that examine the deal-related returns. First, I control for acquirer size (*AqSize*), which is the log of market value of acquirer, because prior study finds that acquirer size is negatively related to the deal-related return (Moeller et al., 2004). I control target size by using the log of deal value (*Deal*). I control for acquirer's leverage by using ratio of total debt to total assets (*Leverage)*. I also control for Tobin's Q because prior study provides evidence that acquirer-investment opportunities impact acquirer returns around the deal announcement (Harford et al., 2012). I also control for 3-days absolute cumulative abnormal return surrounding the date of announcement (*ACARAnnounce*) to control for any information related to the deal that has been known at the date of deal announcement. I also control 3-days cumulative abnormal return surrounding the announcement (*CARAnnounce*) to control for either perceived good or bad news by the

acquiring shareholders regarding the acquisition announcement. I estimate the model using OLS and calculate standard errors clustered at the two-digit SIC industry level.

## 2.4 Results

### 2.4.1 Descriptive Statistics

Table 2.2 provides descriptive statistics for all variables used in the regression analysis. I find that 55.6% of target firms disclose a disaggregated version of assets and liabilities held for sale disclosure over the sample period. I find that, on average, acquirers' cumulative abnormal return surrounding the announcement date (*CARAnnounce*) is 1.9%. This result is consistent with the previous studies that show inter-corporate asset sales convey positive news for acquiring firms (e.g., Faccio et al., 2006; Nguyen and Nguyen, 2019). Meanwhile, the average cumulative abnormal return of acquirers surrounding the disclosure of assets and liabilities held for sale by target firms is –0.03%. While the average CAR associated with the disclosure of assets and liabilities held for sale is trivial, the ACAR associated with the disclosure of assets and liabilities held for sale is 3.8%. The magnitude of return suggests that valuable and unexpected information is contained in the disclosure of assets and liabilities held for sale. The two contradictory results between large absolute returns and small signed returns imply that the disclosure of assets and liabilities held for sale is important, but it is not systematically good or bad news.

In Table 2.3, I provide a mean comparison for each variable used in the regression analysis between deals that involve high and low level of disaggregation of disclosure of assets and liabilities held for sale. By using the t-test, I find no significant difference for all variables used in the regression analysis except for the ACAR associated with the disclosure of assets and liabilities held for sale. The average ACAR surrounding the target firms that disclose high (low) levels of disaggregation of disclosure of assets and liabilities held for sale is 4.7% (2.8%). Overall, no statistically significant differences in the means and variances of all variables across transactions involving aggregated and disaggregated disclosure of assets and liabilities held for sale alleviate the concern of confounding biases.

### 2.4.2 Univariate Test

In Table 2.4 panel A, I provide univariate tests results using bootstrap t-test comparing the mean difference between ACAR in the actual event date and random non-event date after 500 iterations. The mean difference between ACAR in the event date and random non-event date is 0.0316 and statistically significant at a 1% level. This result implies that there is new

and meaningful information surrounding the date of assets and liabilities held for sale disclosure.

Furthermore, in Table 2.4 panel B, I provide bootstrap t-test results comparing mean difference between ACAR in the actual event date and random non-event date after 500 iterations for firms that disaggregate their disclosure and those that do not. I find that the mean difference of ACAR for firms that disaggregate their disclosure and those that do not is 0.0178, which is economically and statistically significant at a 1% level, after considering the mean difference of ACAR during random non-event date for disaggregate and non-disaggregate firms.

### 2.4.3 Results - The Information Relevance of Disaggregated Assets and Liabilities Held for Sale

In the first main analysis, I investigate the relationship between high levels of disaggregation in the disclosure of assets and liabilities held for sale and the ACAR surrounding the disclosure of these assets by target firms. Table 2.5 contains the results of the test for H1. The coefficient of *Disaggregate* in Table 2.5 column (3) is 0.012, which is statistically significant at the 1% level. This indicates that, on average, after controlling for firm and deal-level characteristics, high levels of disaggregated disclosure yield a 1.2% higher ACAR compared to low levels of disaggregated disclosure.

In terms of economic significance, higher levels of disaggregated disclosure translate into 31.6% more information (relative to the mean ACAR of 3.8%) about the value of assets and liabilities held for sale conveyed to acquiring shareholders. I also find that the announcement ACAR (*ACARAnnounce*) is positively related to the ACAR surrounding the disclosure date. This implies that the disclosure ACAR provides additional information that complements the original deal announcement captured in the announcement ACAR.

These findings highlight the role of disaggregated disclosures of assets and liabilities held for sale in reducing uncertainty regarding the value of acquired assets. Prior to disclosure, acquiring shareholders face uncertainty about the specific components and values of the assets being acquired. Post-disclosure, disaggregated information clarifies these uncertainties, enabling acquiring shareholders to better evaluate the synergies and strategic rationale of the acquisition. Moreover, the detailed breakdown of assets and liabilities held for sale allows acquiring shareholders to assess whether the expected benefits are adequately reflected in the deal's valuation.

Overall, the results in Table 2.5 confirm that the disclosure of assets and liabilities held for sale by target firms provides essential information about asset sales. More importantly, a higher level of disaggregated disclosure conveys significantly more relevant information to acquiring shareholders, facilitating better decision-making and valuation assessment.

### 2.4.4 Cross-Section Analysis – Relative Deal Price to Acquirer's Assets

In this section, I further examine how specific deal characteristics enhance the relationship between the disaggregation level of assets and liabilities held for sale disclosures and the magnitude of information conveyed to acquiring shareholders. Detailed information becomes increasingly relevant when the materiality of the deal price relative to the acquirer's size is higher. This is because the total asset capitalized from the transaction is directly tied to the purchase price, which acquiring shareholders use to evaluate the financial and strategic implications of the acquisition. As the materiality of the deal increases, shareholders are likely to pay closer attention to the underlying asset disclosures to assess the potential impact on the firm's future performance and risks.

Table 2.6 column (1) supports this argument, showing that the coefficient *of Disaggregate x DealtoAsset* is positive (0.015) and statistically significant. This finding indicates that, when target firms provide disaggregated disclosures, a one-unit mean increase in *DealtoAsset* (0.18) corresponds to a 0.27% increase in ACAR. These results highlight the importance of disaggregated disclosures, particularly in transactions where the deal price constitutes a significant proportion of the acquirer's total assets, reinforcing their value in enhancing shareholder understanding and decision-making.

### 2.4.5 Cross-Section Analysis – Relative Gain/Loss on Disposal to Acquirer's Assets

A key factor that may heighten the attention of acquiring shareholders to the acquisition of partial assets is the premium paid for the transaction. The premium represents the additional value acquirers attribute to the acquired assets beyond their recorded fair value. One proxy for identifying this premium is the gain on disposal recorded by the target firms, which is calculated as the difference between the fair value of net assets held for sale and the deal price. A higher gain on disposal indicates that acquirers have paid a premium above the fair value, reflecting expectations of future synergies or strategic advantages from the acquisition.

Given the well-documented tendency for negative news to attract more attention than positive news (e.g., Roychowdhury and Watts, 2007), I hypothesize that acquiring shareholders are more likely to scrutinize information related to partial-asset acquisitions when the relative

gain on disposal to the acquirer's total assets increases. This attention may stem from concerns about whether the premium paid is justified by expected benefits.

Table 2.6, column (2), supports this hypothesis. The coefficient of *Disaggregate x GaintoAsset* is positive (0.044) and statistically significant, indicating that when target firms disclose disaggregated assets and liabilities held for sale, a one-unit mean increase in *GaintoAsset* (0.053) results in an increase in ACAR of 0.23%. This finding suggests that disaggregated disclosures provide acquiring shareholders with the detailed information necessary to evaluate whether the premium paid aligns with the strategic rationale for the acquisition.

### 2.4.6 Moderating Effect of Historical Financial Information in Deal Press Release

Apart from mandatory disclosure of assets and liabilities held for sale by target firms, either acquirers or target firms could voluntarily disclose financial information about assets being acquired/disposed of in the deal press release that is commonly included within 8-K form of deal announcement. Acquirers must file an 8-K form to SEC within 4 days of the agreement being reached. The 8-K form should disclose details such as the agreement date, the parties' identity, and a brief description of the agreement's material terms and conditions. Moreover, press releases can be included as exhibits in a Form 8-K filing.

The deal press release enables acquirers to voluntarily disclose the financial information of assets being acquired/disposed of. However, acquirer's managers should be cautious with the proprietary information that might be revealed in the press release. Disclosing forward-looking information could expose managers to the litigation threat and reputation loss (Francis et al., 1994; Skinner, 1997). Thus, managers are more incentivized to disclose historical financial information of assets being acquired that are already audited in the deal press release. The press release that contains historical financial information about assets being acquired could exhibit a substitutive relation to the subsequent fair value information of assets and liabilities held for sale. However, as historical financial information is not timely, I predict that deal press releases that include historical financial information of assets being acquired play a partially muted role in reducing the information relevance of disaggregated assets and liabilities held for sale.

To test my prediction, I develop a dummy variable of *Press_All*, which is a dummy variable with a value of 1 if the deal press release of either acquirer or target firms contains historical financial information of assets being acquired/disposed of, and 0 otherwise. The common examples of historical financial information disclosed in the deal press release are revenue, operating income, and price multiples (e.g., revenue, EBITDA). Knowing some

information about historical financial information of assets being acquired helps acquiring shareholders in evaluating the acquisition decision.

The results presented in Table 2.7 columns (1) show a negative association (1% significant level) between *Disaggregate x Press_All* and ACAR. This indicates that the positive relation between high level of disaggregation of assets and liabilities held for sale and ACAR surrounding the disclosure is more muted when the historical financial information of assets being acquired is already disclosed in the deal press release.

Then, I am interested in whether there is a difference in information value between financial information disclosed by acquirers and target firms in their press releases. I create separate dummy variables for press releases that contain financial information disclosed by acquirers (*Press_Buyer*) and target firms (*Press_Seller*). I interact those two variables with disaggregate dummy variable and find a negative association (weaker association for seller press release as the standard error is higher). Overall, the results imply that the information relevance of disaggregated assets and liabilities held for sale will be lower if the deal press release includes historical financial information.

### 2.4.7 Robustness Tests – Market Adjusted Model

To validate the robustness of the methodological approach used in calculating abnormal returns, I re-estimate the main analysis using the market-adjusted model. This approach assumes fixed market model parameters, specifically $\alpha = 0$ and $\beta = 1$, as outlined in Fuller et al. (2002). The results, presented in columns (1)–(3) of Table 2.8, indicate that the coefficient of *Disaggregate* remains positive and statistically significant. These findings confirm that the relationship between disaggregated disclosures and abnormal returns is consistent across alternative specification, providing additional support for the reliability of the results.

### 2.4.8 Robustness Tests – Blockholders Ownership

One crucial assumption in the main results is that there is private information revealed on the date of assets and liabilities held for sale disclosure to the acquiring shareholders, who trade on that revealed private information. However, with the existence of large shareholders (commonly known as “blockholders”), which have more incentive to gather private information (Edmans, 2014), it is possible that those blockholders already trade on the private information during the date of assets acquisition announcement. As a result, higher blockholder ownership could make public information about assets being disposed of less relevant.

I conduct two tests to ensure that a positive relation between the disaggregated disposal group held for sale disclosure and absolute cumulative abnormal return is still held in the existence of blockholders ownership. First, I include the proportion of ownership as institutional blockholders as a control variable in the main regression. The results in column (1) of Table 2.9 show that the coefficient of *Disaggregate* remains positive and statistically significant.

Then, I create a dummy variable of 1 if the proportion of institutional blockholders is higher than the median in that year (*HighBlock*). I interact *HighBlock* with *Disaggregate* variable to investigate whether the relevance of disaggregated disposal group held for sale disclosure is muted in the existence of high proportion of institutional blockholders. The results in column (2) of Table 2.9 show that the coefficient of *Disaggregate x HighBlock* is insignificant. This result implies that the disaggregated disposal group held for sale disclosure is still relevant and reveals private information about the assets being acquired even when there is high institutional blockholder ownership.

### 2.4.9 Robustness Tests – Segment Reporting Disclosure

Another crucial assumption in the main results is that there is limited information about assets being acquired before the issuance of disposal group held for sale disclosure. However, one can argue that detailed information about specific assets can be already included within the segment reporting disclosure. Thus, disaggregation of disposal groups held for sale disclosure might be less relevant if the acquired assets are included within the target firm's segment reporting disclosure.

I conduct two tests to ensure that a positive relation between the disaggregated disposal group held for sale disclosure and absolute cumulative abnormal return still holds when the acquired assets are already disclosed within the segment reporting of target firms. First, I include the dummy variable of *Segment* that has the value of 1 if the assets being acquired are already included within segment reporting of target firms as a control variable in the main regression. The results presented in column (1) of Table 2.10 show that the coefficient of *Disaggregate* remains positive and statistically significant.

Then, I interact *Segment* with *Disaggregate* variable to investigate whether the relevance of the disaggregated disposal group held for sale disclosure is muted when the assets being acquired are already included within segment reporting disclosure of target firms. The

results presented in column (2) of Table 2.10 show that the coefficient of *Disaggregate x Segment* is insignificant.

### 2.4.10 Robustness Tests – Information Spillover

Firms' financial disclosures can provide information spillover for peer firms (e.g., Foster, 1981; Baginski, 1987; and Savor and Wilson, 2016). To rule out that the main findings are not driven by the general spillover effect of target firms' disclosure that is unrelated to the disclosure of assets and liabilities held for sale, I run a falsification test. In this test, I re-run the main analysis by replacing the dependent variable with the ACAR surrounding the disclosure of 10-K or 10-Q of target firms one quarter prior to the disclosure of assets and liabilities held for sale.

The results presented in Table 2.11 column (1) show that the coefficient of *Disaggregate* is close to zero and statistically insignificant. To further isolate the effect of disclosure of assets and liabilities held for sale relative to the general spillover effect of target firms' disclosure, I create a new dependent variable by deducting prior quarter ACAR to the ACAR surrounding the disclosure of assets and liabilities held for sale. The results presented in Table 2.11 column (2) show that the coefficient of *Disaggregate* is positive and statistically significant at 5% level. These results confirm that the main findings are not influenced by the general spillover effect of the target firm's disclosure.

### 2.4.11 Robustness Test – Controlling for Stock Return Volatility

A potential source of omitted variable bias arises if the higher absolute cumulative abnormal returns I observe for acquiring firms that target companies with disaggregated assets and liabilities held for sale disclosure simply reflect higher underlying stock return volatility rather than a genuine market reaction to the information content of the disclosure. Specifically, firms with higher pre-event volatility naturally exhibit larger absolute stock price movements around corporate events, which could mechanically inflate the measured abnormal returns without representing any true information premium. If target firms that provide disaggregated disclosure happen to be acquired by more volatile acquirers, the results could be driven by this volatility effect rather than the market's valuation of the enhanced disclosure quality. Failure to account for pre-event volatility characteristics could therefore lead to an overestimate of the disaggregated disclosure effect.

To account for this, I measure pre-event stock return volatility of the acquiring firms using the standard deviation of daily stock returns from CRSP over three different windows

ending one day before the assets and liabilities held for sale disclosure: 60 trading days (approximately 3 months), 126 trading days (approximately 6 months), and 252 trading days (approximately 1 year). Following standard practice in the literature, I annualize daily volatility by multiplying by √252. Including these controls helps ensure that the estimated effect of disaggregated disclosure reflects genuine information benefits rather than mechanical effects from higher stock volatility.

I re-estimate the main model including acquirer stock return volatility measured over each window (*StockVol_60, StockVol_126*, and *StockVol_252*). Table 2.12 presents the results from estimating the main test after controlling for pre-event acquirer stock return volatility across the three measurement windows, and the inferences remain unchanged after including these volatility controls. The coefficient on *Disaggregate* remains positive and statistically significant across all specifications, indicating that my main findings represent a genuine market reaction to enhanced disclosure quality rather than a mechanical effect of higher stock volatility.

### 2.4.12 Additional Test – Fair Value Relevance

The results in section 2.4.9 show that the disaggregated information of assets and liabilities held for sale is still relevant despite this information has been partially disclosed before within segment reporting disclosure. However, assuming that segment reporting information was predominantly measured at amortized cost, the fair value of assets and liabilities held for sale might give incremental information to the acquiring shareholders.

As fair value is an exit price notion, it might be more relevant for acquiring shareholders to look at the fair value rather than the amortized cost disclosed before. However, it is important to note that some parts of assets disclosed within segment reporting already apply fair value measurement to some extent. For instance, firms measure PPE by looking at the lower of carrying amount or recoverable amount (i.e. fair value). However, while still in use, firms could measure the fair value of PPE by estimating the synergy (to measure value-in-use) of PPE A and PPE B. Meanwhile, assuming PPE A and PPE B belong to different business units, firms selling PPE A need to exclude the synergy of PPE A with PPE B to calculate the fair value. Thus, the fair value amount within assets held for sale disclosure is more relevant for acquiring shareholders than the fair value amount within segment reporting.

To test this notion, I interact the dummy variable of loss on impairment to deal price with disaggregate disclosure dummy variable. When measuring assets and liabilities held for sale, firms need to record loss on impairment if the fair value of assets and liabilities held for sale is

lower than is carrying value. Loss on impairment reflects the incremental fair value information provided by the disclosure of assets and liabilities held for sale.

The results presented in Table 2.13 columns (1) show positive association (5% significant level) between *Disaggregate x Impairment* and ACAR. Then, I create a separate interaction variable between dummy loss on impairment other than goodwill (*Disaggregate x Impairment_Operating)* and dummy goodwill impairment (*Disaggregate x Impairment_Goodwill)* to deal price. The results presented in Table 2.13 columns (2) and columns (3) show a positive association between those two variables and ACAR. This implies that more granular fair value information is more relevant to the acquiring shareholders when there is a difference between amortized cost and fair value. These findings could point out the superiority of fair value over amortized cost in the context of disclosure of assets and liabilities being disposed of.

## 2.5 Conclusion

I investigate whether the disclosure of disaggregated assets and liabilities held for sale by target firms provides relevant information for acquiring shareholders during the partial-firm acquisition process. To gauge whether that disclosure by target firms is relevant for acquiring shareholders, I use absolute cumulative abnormal return that reflects the average change in investor expectations related to the economic importance of the information disclosed. I find that higher disaggregation of assets and liabilities held for sale disclosure is associated with higher absolute cumulative abnormal return by acquirers around the date of disclosure by target firms. This result suggests that more relevant information is conveyed to acquiring shareholders regarding asset sales when target firms disclose the value of assets and liabilities held for sale in a clearly disaggregated manner. However, the positive effect is more muted when the historical information of assets being acquired is disclosed in the deal press release.

Meanwhile, I find that the effect of disaggregated disclosure of assets and liabilities held for sale is more pronounced when there is a higher proportion of deal price to total assets of acquirers, suggesting that detailed information about the value of assets and liabilities held for sale is likely more important when the materiality of the deal price relative to the acquirer's size is higher. Moreover, I also find that acquiring shareholders pay more attention to the assets and liabilities held for sale disclosure when target firms record a higher gain on disposal. This finding implies that disaggregated assets and liabilities held for sale disclosure is more relevant for acquiring shareholders when the acquirers pay higher premiums in partial-firm acquisition.

In addition, I find empirical evidence that fair value measurement is more relevant than amortized cost in the context of assets and liabilities being disposed of.

Overall, these findings emphasize the importance of detailed disclosures in reducing uncertainty and enabling acquiring shareholders to evaluate synergies and deal valuations more effectively. This study offers important insights for regulators, such as the SEC, and standard setters in considering whether stricter rules on the aggregation of assets and liabilities held for sale disclosures are needed to improve transparency and decision-usefulness.

Table 2.1 Sample Selection

| | |
|---|---|
| Total material divestiture transactions of US-based assets from 2002-2022 | 3,436 |
| Less foreign parents of target firms | 543 |
| Less target firm is a financial institution | 763 |
| Less parent firm is a financial institution | 761 |
| Less acquirer is not a public firm | 603 |
| Less bankruptcy, leveraged buyout | 394 |
| Less data not available in Compustat and CRSP | 26 |
| Number of firm-year observation in the sample | 272 |

Table 2.1 reports the process of sample selection.

Table 2.2 Descriptive Statistics

| | N | Mean | p25 | Median | p75 | SD |
|---|---|---|---|---|---|---|
| *ACAR* | 272 | 0.038 | 0.017 | 0.029 | 0.044 | 0.036 |
| *CAR* | 272 | -0.003 | -0.018 | -0.003 | 0.011 | 0.037 |
| *Disaggregate* | 272 | 0.556 | 0 | 1 | 1 | 0.497 |
| *AqSize* | 272 | 8.261 | 6.951 | 8.098 | 9.473 | 1.821 |
| *Deal* | 272 | 5.418 | 4.538 | 5.333 | 6.31 | 1.136 |
| *TobinsQ* | 272 | 1.959 | 1.289 | 1.607 | 2.296 | 1.417 |
| *ACARAnnounce* | 272 | 0.067 | 0.025 | 0.046 | 0.080 | 0.068 |
| *CARAnnounce* | 272 | 0.019 | -0.012 | 0.011 | 0.038 | 0.073 |
| *DealtoAsset* | 272 | 0.183 | 0.025 | 0.073 | 0.185 | 0.355 |
| *GaintoAsset* | 272 | 0.053 | 0.001 | 0.017 | 0.058 | 0.161 |
| *Leverage* | 272 | 0.268 | 0.130 | 0.236 | 0.388 | 0.201 |

Table 2.2 shows the descriptive statistics for all variables used in the regression analyses. Variables are defined in Appendix A.1

Table 2.3 Test Comparing High Versus Low Disaggregation Disclosure of Assets and Liabilities Held for Sale

| | Disaggregated = 1 | Disaggregated = 0 | Test of Difference |
|---|---|---|---|
| *ACAR* | 0.047 | 0.028 | -0.019*** |
| *AqSize* | 8.412 | 8.139 | 0.273 |
| *Deal* | 533.874 | 373.074 | -160.794 |
| *TobinsQ* | 1.980 | 1.932 | -0.048 |
| *ACARAnnounce* | 0.060 | 0.073 | -0.013 |
| *CARAnnounce* | 0.022 | 0.015 | 0.007 |
| *DealtoAsset* | 0.197 | 0.165 | -0.032 |
| *GaintoAsset* | 0.056 | 0.059 | -0.003 |
| *Leverage* | 0.270 | 0.265 | -0.005 |

Table 2.3 reports the result of t-test for the mean difference of all variables used in the regression analyses between high and low level of disaggregation disclosure. ***, **, and *, indicating significance at the less than 1%, 5%, and 10% levels, respectively.

Table 2.4 Univariate Test - ACAR Mean Difference

Panel A: Mean difference of ACAR during event date and random non-event date

| Univariate Tests | Actual event date | Random event date | Difference |
|---|---|---|---|
| $ACAR_{500}$ | 0.0381 | 0.0065 | 0.0316*** |

Panel B: Mean difference of ACAR for different level of disaggregation

| Univariate Tests | Disaggregated | Non-Disaggregated | Difference |
|---|---|---|---|
| ACAR | 0.0470 | 0.0280 | 0.0190 |
| $ACAR\_Random_{500}$ | 0.0070 | 0.0058 | 0.0012 |
| | | | 0.0178*** |

Table 2.4 reports the results of the bootstrap t-test for the mean difference between the actual event date ACAR and the random non-event date ACAR. It also includes the mean difference between random non-event date ACAR for firms that disaggregate and those that do not. The subscripts in $ACAR_n$ (500) indicate the number of iterations used to estimate the bootstrap p-value. ***, **, and * denote bootstrap p-value significance levels at less than 1%, 5%, and 10%, respectively.

Table 2.5 Multivariate Analysis of CAR Around the Disclosure Date

| | (1) | (2) | (3) |
|---|---|---|---|
| VARIABLES | ACAR | ACAR | ACAR |
| *Disaggregate* | 0.016*** | 0.012*** | 0.012*** |
| | (0.004) | (0.004) | (0.004) |
| *AqSize* | -0.004** | -0.004*** | -0.003*** |
| | (0.002) | (0.001) | (0.001) |
| *Deal* | -0.003 | -0.004* | -0.005** |
| | (0.002) | (0.002) | (0.002) |
| *Leverage* | 0.007 | -0.002 | 0.001 |
| | (0.007) | (0.009) | (0.010) |
| *TobinsQ* | 0.002*** | 0.001 | 0.001 |
| | (0.001) | (0.001) | (0.001) |
| *ACARAnnounce* | 0.151*** | 0.137** | 0.181*** |
| | (0.044) | (0.057) | (0.061) |
| *CARAnnounce* | -0.054 | -0.043 | -0.086 |
| | (0.039) | (0.057) | (0.079) |
| Observations | 272 | 272 | 259 |
| R-squared | 0.230 | 0.347 | 0.460 |
| Year FE | NO | YES | YES |
| Industry FE | NO | NO | YES |

Table 2.5 presents results from estimating equation (1). Variables are defined in Appendix A.1. I present coefficient estimate and clustered standard errors (in parentheses), followed by ***, **, and *, indicating significance at the less than 1%, 5%, and 10% levels, respectively.

Table 2.6 Cross-Sectional Analysis of CAR Around the Disclosure Date

| | (1) | (2) |
|---|---|---|
| VARIABLES | ACAR | ACAR |
| *Disaggregate* | 0.010*** | 0.011** |
| | (0.003) | (0.004) |
| *DealtoAsset* | 0.005 | |
| | (0.008) | |
| *Disaggregate x DealtoAsset* | 0.015* | |
| | (0.009) | |
| *GaintoAsset* | | -0.014 |
| | | (0.012) |
| *Disaggregate x GaintoAsset* | | 0.044** |
| | | (0.018) |
| *AqSize* | -0.002 | -0.003** |
| | (0.001) | (0.001) |
| *Deal* | -0.006*** | -0.005* |
| | (0.002) | (0.002) |
| *Leverage* | 0.004 | 0.003 |
| | (0.009) | (0.012) |
| *TobinsQ* | -0.001 | 0.001 |
| | (0.001) | (0.001) |
| *ACARAnnounce* | 0.136** | 0.173** |
| | (0.053) | (0.065) |
| *CARAnnounce* | -0.076 | -0.100 |
| | (0.061) | (0.089) |
| Observations | 259 | 259 |
| R-squared | 0.480 | 0.465 |
| Year FE | YES | YES |
| Industry FE | YES | YES |

Table 2.6 presents the results of cross-sectional tests of the effect of the disaggregation of disclosure of assets and liabilities held for sale by target firms on absolute cumulative abnormal return of acquirers surrounding the date of disclosure. Variables are defined in Appendix A.1. I present coefficient estimate and clustered standard errors (in parentheses), followed by ***, **, and *, indicating significance at the less than 1%, 5%, and 10% levels, respectively.

Table 2.7 Moderating Effect of Deal Press Release Information

| | (1) | (2) | (3) |
|---|---|---|---|
| VARIABLES | ACAR | ACAR | ACAR |
| *Disaggregate* | 0.020*** | 0.020*** | 0.020*** |
| | (0.005) | (0.005) | (0.005) |
| *Disaggregate x Press_All* | -0.012*** | | |
| | (0.003) | | |
| *Press_All* | -0.007** | | |
| | (0.003) | | |
| *Disaggregate x Press_Buyer* | | -0.012*** | |
| | | (0.004) | |
| *Press_Buyer* | | -0.007* | |
| | | (0.004) | |
| *Disaggregate x Press_Seller* | | | -0.020** |
| | | | (0.008) |
| *Press_Seller* | | | -0.000 |
| | | | (0.003) |
| *AqSize* | -0.004*** | -0.004*** | -0.003*** |
| | (0.001) | (0.001) | (0.001) |
| *Deal* | -0.002 | -0.001 | -0.003 |
| | (0.002) | (0.002) | (0.002) |
| *Leverage* | 0.003 | 0.003 | 0.005 |
| | (0.010) | (0.010) | (0.010) |
| *TobinsQ* | 0.001 | 0.001 | 0.000 |
| | (0.001) | (0.001) | (0.001) |
| *ACARAnnounce* | 0.151** | 0.158** | 0.151** |
| | (0.069) | (0.066) | (0.062) |
| *CARAnnounce* | -0.069 | -0.075 | -0.065 |
| | (0.084) | (0.083) | (0.079) |
| Observations | 259 | 259 | 259 |
| R-squared | 0.491 | 0.490 | 0.490 |
| Year FE | YES | YES | YES |
| Industry FE | YES | YES | YES |

Table 2.7 presents results of the moderating effect of historical financial information disclosed in the deal press release on absolute cumulative abnormal return of acquirers surrounding the date of disclosure of assets and liabilities held for sale. Variables are defined in Appendix A.1. I present coefficient estimate and clustered standard errors (in parentheses), followed by ***, **, and *, indicating significance at the less than 1%, 5%, and 10% levels, respectively.

Table 2.8 Robustness Test - Market Adjusted Model

| | (1) | (2) | (3) |
|---|---|---|---|
| VARIABLES | ACAR | ACAR | ACAR |
| *Disaggregate* | 0.017*** | 0.013*** | 0.013*** |
| | (0.004) | (0.003) | (0.003) |
| *AqSize* | -0.003* | -0.003* | -0.002* |
| | (0.002) | (0.001) | (0.001) |
| *Deal* | -0.003 | -0.005* | -0.005* |
| | (0.002) | (0.002) | (0.002) |
| *Leverage* | 0.012* | 0.003 | 0.005 |
| | (0.006) | (0.008) | (0.009) |
| *TobinsQ* | 0.002*** | 0.002** | 0.001 |
| | (0.001) | (0.001) | (0.001) |
| *ACARAnnounce* | 0.165*** | 0.148** | 0.190*** |
| | (0.044) | (0.056) | (0.065) |
| *CARAnnounce* | -0.070 | -0.063 | -0.094 |
| | (0.049) | (0.066) | (0.083) |
| Observations | 272 | 272 | 259 |
| R-squared | 0.236 | 0.350 | 0.447 |
| Year FE | NO | YES | YES |
| Industry FE | NO | NO | YES |

Table 2.8 presents results from estimating equation (1) by using market-adjusted model to estimate acquirer's abnormal return. Variables are defined in Appendix A.1. I present coefficient estimate and clustered standard errors (in parentheses), followed by ***, **, and *, indicating significance at the less than 1%, 5%, and 10% levels, respectively.

Table 2.9 Robustness Test – Blockholders Ownership

| | (1) | (2) |
|---|---|---|
| VARIABLES | ACAR | ACAR |
| *Disaggregate* | 0.010*** | 0.009* |
| | (0.004) | (0.004) |
| *Block* | -0.018 | |
| | (0.013) | |
| *HighBlock* | | -0.009* |
| | | (0.005) |
| *Disaggregate x HighBlock* | | 0.008 |
| | | (0.008) |
| *AqSize* | -0.004** | -0.003** |
| | (0.001) | (0.001) |
| *Deal* | -0.005** | -0.004** |
| | (0.002) | (0.002) |
| *Leverage* | 0.003 | 0.002 |
| | (0.01) | (0.010) |
| *TobinsQ* | 0.000 | 0.001 |
| | (0.001) | (0.002) |
| *ACARAnnounce* | 0.170*** | 0.157*** |
| | (0.043) | (0.034) |
| *CARAnnounce* | -0.125 | -0.0915 |
| | (0.088) | (0.060) |
| Constant | 0.078*** | 0.075*** |
| | (0.016) | (0.012) |
| Observations | 259 | 259 |
| R-squared | 0.475 | 0.485 |
| Year FE | YES | YES |
| Industry FE | YES | YES |

Table 2.9 presents results from robustness tests to the concern of blockholders presence. Variables are defined in Appendix A.1. I present coefficient estimate and clustered standard errors (in parentheses), followed by ***, **, and *, indicating significance at the less than 1%, 5%, and 10% levels, respectively.

Table 2.10 Robustness Test - Segment Disclosure

| | (1) | (2) |
|---|---|---|
| VARIABLES | ACAR | ACAR |
| *Disaggregate* | 0.015*** | 0.016*** |
| | (0.004) | (0.005) |
| *Segment* | -0.008*** | -0.005 |
| | (0.003) | (0.006) |
| *Disaggregate x Segment* | | -0.003 |
| | | (0.008) |
| *AqSize* | -0.003*** | -0.003*** |
| | (0.001) | (0.001) |
| *Deal* | -0.004* | -0.004* |
| | (0.002) | (0.002) |
| *Leverage* | 0.0003 | 0.000 |
| | (0.011) | (0.011) |
| *TobinsQ* | 0.000 | 0.000 |
| | (0.001) | (0.001) |
| *ACARAnnounce* | 0.177*** | 0.177*** |
| | (0.061) | (0.061) |
| *CARAnnounce* | -0.089 | -0.088 |
| | (0.079) | (0.078) |
| Observations | 259 | 259 |
| R-squared | 0.467 | 0.467 |
| Year FE | YES | YES |
| Industry FE | YES | YES |

Table 2.10 presents results from robustness tests to the concern of segment disclosure. Variables are defined in Appendix A.1. I present coefficient estimate and clustered standard errors (in parentheses), followed by ***, **, and *, indicating significance at the less than 1%, 5%, and 10% levels, respectively.

Table 2.11 Robustness Test – Information Spillover Effect

| | (1) | (2) |
|---|---|---|
| VARIABLES | ACAR_Prior | ACAR_Adjusted (ACAR – ACAR_Prior) |
| *Disaggregate* | 0.000 | 0.011** |
| | (0.005) | (0.005) |
| *AqSize* | -0.003 | -0.000 |
| | (0.002) | (0.002) |
| *Deal* | -0.005* | 0.000 |
| | (0.002) | (0.003) |
| *Leverage* | -0.008 | 0.009 |
| | (0.011) | (0.015) |
| *TobinsQ* | 0.002*** | -0.002 |
| | (0.000) | (0.001) |
| *ACARAnnounce* | 0.223*** | -0.052 |
| | (0.062) | (0.098) |
| *CARAnnounce* | -0.160** | 0.081 |
| | (0.067) | (0.090) |
| Observations | 259 | 259 |
| R-squared | 0.466 | 0.271 |
| Year FE | YES | YES |
| Industry FE | YES | YES |

Table 2.11 presents results from robustness tests to the concern of information spillover. Variables are defined in Appendix A.1. I present coefficient estimate and clustered standard errors (in parentheses), followed by ***, **, and *, indicating significance at the less than 1%, 5%, and 10% levels, respectively.

Table 2.12 Robustness Test - Stock Return Volatility

| | (1) | (2) | (3) |
|---|---|---|---|
| VARIABLES | ACAR | ACAR | ACAR |
| *Disaggregate* | 0.012*** | 0.012*** | 0.012*** |
| | (0.003) | (0.003) | (0.003) |
| *AqSize* | -0.002*** | -0.002** | -0.002* |
| | (0.001) | (0.001) | (0.001) |
| *Deal* | -0.003 | -0.003 | -0.003 |
| | (0.002) | (0.002) | (0.002) |
| *Leverage* | -0.005 | -0.004 | -0.003 |
| | (0.010) | (0.009) | (0.009) |
| *TobinsQ* | -0.001 | -0.001 | -0.000 |
| | (0.001) | (0.001) | (0.001) |
| *ACARAnnounce* | 0.110* | 0.106* | 0.129** |
| | (0.055) | (0.052) | (0.049) |
| *CARAnnounce* | -0.091 | -0.084 | -0.086 |
| | (0.070) | (0.070) | (0.076) |
| *StockVol_60* | 0.042* | | |
| | (0.024) | | |
| *StockVol_126* | | 0.056* | |
| | | (0.030) | |
| *StockVol_252* | | | 0.053* |
| | | | (0.026) |
| Observations | 259 | 259 | 259 |
| R-squared | 0.477 | 0.489 | 0.482 |
| Year FE | YES | YES | YES |
| Industry FE | YES | YES | YES |

Table 2.12 presents results from robustness tests to the concern of stock return volatility. Variables are defined in Appendix A.1. I present coefficient estimate and clustered standard errors (in parentheses), followed by ***, **, and *, indicating significance at the less than 1%, 5%, and 10% levels, respectively.

Table 2.13 Additional Analysis - Fair Value Relevance

| | (1) | (2) | (3) |
|---|---|---|---|
| VARIABLES | ACAR | ACAR | ACAR |
| *Disaggregate* | 0.009** | 0.011*** | 0.010*** |
| | (0.003) | (0.0035) | (0.003) |
| *Impairment* | 0.011** | | |
| | (0.004) | | |
| *Disaggregate x Impairment* | 0.021** | | |
| | (0.009) | | |
| *Operating Impairment* | | 0.016*** | |
| | | (0.005) | |
| *Disaggregate x Operating Impairment* | | 0.021* | |
| | | (0.011) | |
| *Goodwill Impairment* | | | 0.005 |
| | | | (0.004) |
| *Disaggregate x Goodwill Impairment* | | | 0.022** |
| | | | (0.008) |
| *AqSize* | -0.003** | -0.003** | -0.003*** |
| | (0.001) | (0.001) | (0.001) |
| *Deal* | -0.002 | -0.002 | -0.003* |
| | (0.002) | (0.001) | (0.001) |
| *Leverage* | 0.004 | 0.005 | 0.001 |
| | (0.009) | (0.009) | (0.009) |
| *TobinsQ* | 0.001 | 0.002** | 0.000 |
| | (0.001) | (0.001) | (0.001) |
| *ACARAnnounce* | 0.174*** | 0.170*** | 0.152*** |
| | (0.043) | (0.038) | (0.029) |
| *CARAnnounce* | -0.097 | -0.101 | -0.081 |
| | (0.074) | (0.074) | (0.058) |
| Observations | 259 | 259 | 259 |
| R-squared | 0.531 | 0.536 | 0.511 |
| Year FE | YES | YES | YES |
| Industry FE | YES | YES | YES |

Table 2.13 presents results from additional test for examining the fair value relevance of assets and liabilities held for sale. Variables are defined in Appendix A.1. I present coefficient estimate and clustered standard errors (in parentheses), followed by ***, **, and *, indicating significance at the less than 1%, 5%, and 10% levels, respectively.

# Appendix A

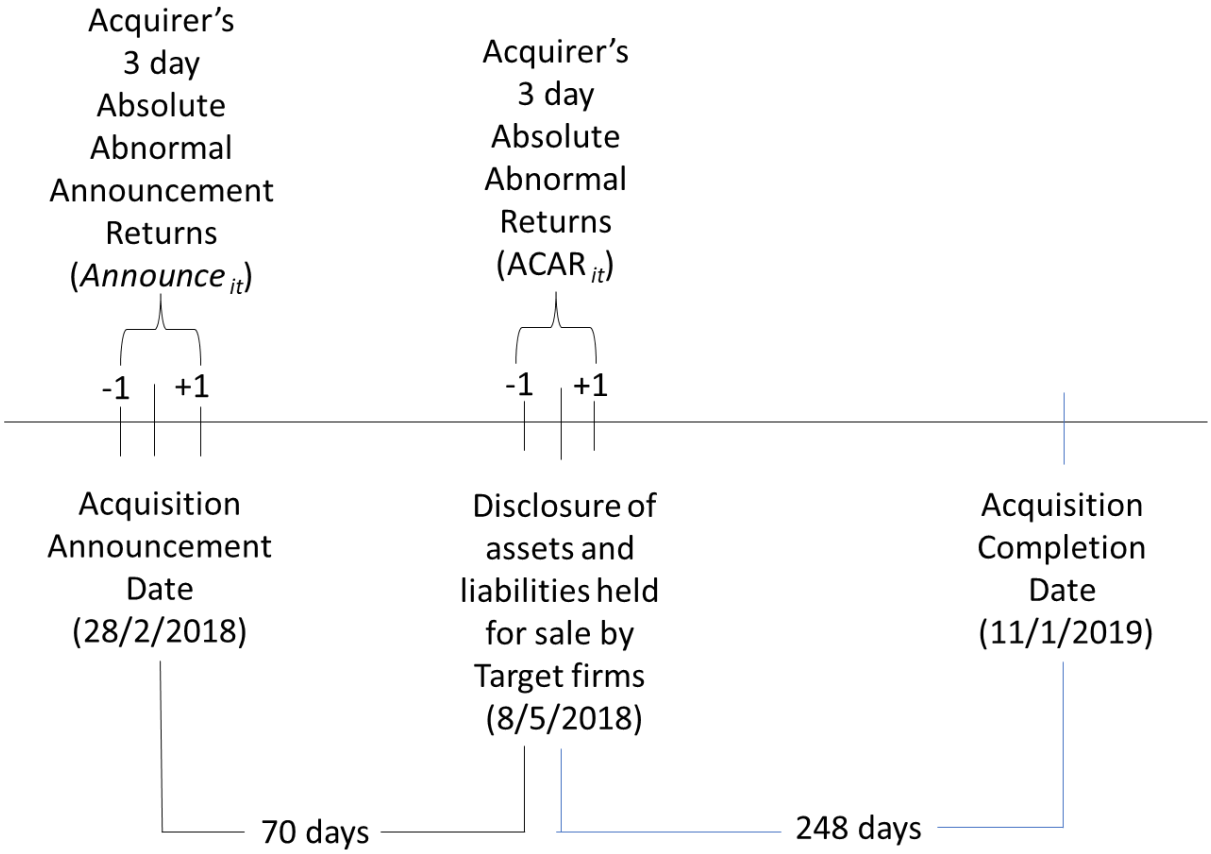
## A.1 Supplementary Material for Chapter 2

Appendix 2.1 Variable Definition

| Variable | Definition | Source |
|---|---|---|
| ACAR | Cumulative abnormal returns of acquirers from day −1 to 1, where day 0 is the disclosure of assets and liabilities date. Abnormal returns are generated as the difference between normal returns and benchmark returns predicted from the market model of which parameters are estimated based on daily stock returns and CRSP value-weighted returns as the market returns during the period of 252 trading days, (−267, −15) | CRSP |
| Disaggregate | Dummy variable with the value of 1 (0) if there is a high (low) level of disaggregation of disclosure for assets and liabilities held for sale | EDGAR |
| AqSize | Log of market value of acquirer | Compustat |
| Deal | Log of deal price | EDGAR |
| Leverage | Ratio of total debt to total assets | Compustat |
| TobinsQ | Market value of assets divided by book value of assets. Market value of assets is calculated as the book value of assets minus book value of equity, plus market value of equity | Compustat |
| ACARAnnounce | 3-days absolute cumulative abnormal return surrounding the date of announcement | CRSP |
| CARAnnounce | 3-days cumulative abnormal return surrounding the date of announcement | CRSP |
| DealtoAsset | Ratio of deal price to total acquirer's assets | Compustat |
| GaintoAsset | Ratio of gain or loss on disposal to total acquirer's assets | Compustat |
| Block | The proportion of blockholders ownership | 13F |
| HighBlock | Dummy variable with the value of 1 if the proportion of blockholders ownership is higher than median of that year | 13F |
| Segment | Dummy variable with the value of 1 if the assets being disposed of already included within the segment disclosure | EDGAR |
| Impairment | Dummy variable with the value of 1 if company record impairment before reclassifying assets and liabilities held for sale | EDGAR |
| Impairment_Operating | Dummy variable with the value of 1 if company record operating impairment before reclassifying assets and liabilities held for sale | EDGAR |
| Impairment_Goodwill | Dummy variable with the value of 1 if company record goodwill impairment before reclassifying assets and liabilities held for sale | EDGAR |
| StockVol_60 | Standard deviation of daily stock returns over the 60 trading days (approximately 3 months) ending one day before the assets and liabilities | CRSP |

| | | |
|---|---|---|
| | held for sale disclosure. The daily volatility is annualized by multiplying by √252. | |
| StockVol_126 | Standard deviation of daily stock returns over the 126 trading days (approximately 6 months) ending one day before the assets and liabilities held for sale disclosure. The daily volatility is annualized by multiplying by √252. | CRSP |
| StockVol_252 | Standard deviation of daily stock returns over the 252 trading days (approximately 1 year) ending one day before the assets and liabilities held for sale disclosure. The daily volatility is annualized by multiplying by √252. | CRSP |

Appendix 2.2 Timeline of Asset Sales and The Dynamic of Disclosure Activity (Example from Eldorado Resort Inc Divestiture of Presque Isle Down Casino)



## Appendix 2.3 Assets and Liabilities Held for Sale Disclosure Examples

High Disaggregation: Clear distinction between each major assets and liabilities for each disposal group (Eldorado Resort Inc Divestiture)

The Dispositions met the requirements for presentation as assets held for sale under generally accepted accounting principles as of March 31, 2018.

The assets and liabilities held for sale were as follows (in thousands):

| | March 31, 2018 | | |
|---|---|---|---|
| | Vicksburg | Presque Isle Downs | Total |
| Assets: | | | |
| Accounts receivable, net | $ 110 | $ 2,083 | $ 2,193 |
| Inventories | 283 | 1,530 | 1,813 |
| Prepaid expenses and other | 232 | 1,072 | 1,304 |
| Property and equipment, net | 35,615 | 68,039 | 103,654 |
| Goodwill | 8,806 | 3,122 | 11,928 |
| Other intangibles, net | 2,720 | 75,422 | 78,142 |
| Assets held for sale | $ 47,766 | $ 151,268 | $ 199,034 |
| | | | |
| Liabilities: | | | |
| Accounts payable | $ 181 | $ 688 | $ 869 |
| Accrued payroll and related | 183 | 537 | 720 |
| Accrued property and other taxes | — | 61 | 61 |
| Accrued other liabilities | 367 | 3,381 | 3,748 |
| Liabilities related to assets held for sale | $ 731 | $ 4,667 | $ 5,398 |

Low Disaggregation: Clear distinction between each major asset and liabilities but no distinction between each disposal group (TerraSource Global and Abel Business)

During the fourth quarter of 2020, the Company announced that it had initiated a plan to divest the TerraSource Global and flow control businesses, which includes the Red Valve business ("Red Valve") and Abel Pump business ("ABEL"), which operate within the Advanced Process Solutions reportable segment, as these businesses were no longer considered a strategic fit with the Company's long-term growth plan and operational objectives. As discussed below, the Company completed the sale of Red Valve on December 31, 2020, and expects to the complete the divestiture of ABEL during its second fiscal quarter. The divestiture of the TerraSource Global business is expected to occur within the current fiscal year. As of September 30, 2020, the Company determined that these businesses met the criteria to be classified as held for sale, and therefore reclassified the related assets and liabilities as held for sale on the Consolidated Balance Sheets. As of December 31, 2020, the TerraSource Global and ABEL businesses continue to be classified as held for sale.

The following is a summary of the major categories of assets and liabilities that have been classified as held for sale on the Consolidated Balance Sheets:

| | December 31, 2020 | September 30, 2020 |
|---|---|---|
| Trade receivables, net | $ 13.5 | $ 19.8 |
| Inventories | 18.6 | 22.0 |
| Property, plant and equipment, net | 8.7 | 12.9 |
| Operating lease right-of-use assets | 3.1 | 4.3 |
| Intangible assets, net | 92.5 | 133.6 |
| Goodwill | 20.4 | 19.5 |
| Other assets | 10.0 | 9.4 |
| Valuation allowance on disposal group [1] | (23.5) | (45.4) |
| **Total assets held for sale** [2] | $ 143.3 | $ 176.1 |
| | | |
| Trade accounts payable | $ 4.5 | $ 7.3 |
| Liabilities from long-term manufacturing contracts and advances | 5.5 | 4.9 |
| Operating lease liabilities | 2.2 | 4.5 |
| Deferred income taxes | 5.5 | 8.8 |
| Other liabilities | 5.9 | 7.0 |
| **Total liabilities held for sale** | $ 23.6 | $ 32.5 |

Low Disaggregation: Only disclosed aggregate assets and liabilities held for sale at the face of statement of financial position (Roper Technologies)

| | | |
|---|---|---|
| Cash and cash equivalents | $ | 421.8 |
| Accounts receivable, net | | 669.3 |
| Inventories, net | | 201.9 |
| Income taxes receivable | | 47.9 |
| Unbilled receivables | | 180.0 |
| Other current assets | | 81.7 |
| Current assets held for sale | | 48.5 |
| Total current assets | | 1,651.1 |
| | | |
| Property, plant and equipment, net | | 138.6 |
| Goodwill | | 9,389.4 |
| Other intangible assets, net | | 3,964.0 |
| Deferred taxes | | 29.9 |
| Other assets | | 99.8 |
| Assets held for sale | | 88.2 |
| | | |
| Total assets | $ | 15,361.0 |
| | | |
| LIABILITIES AND STOCKHOLDERS' EQUITY: | | |
| | | |
| Accounts payable | $ | 165.2 |
| Accrued compensation | | 181.4 |
| Deferred revenue | | 620.0 |
| Other accrued liabilities | | 234.4 |
| Income taxes payable | | 28.7 |
| Current portion of long-term debt, net | | 801.7 |
| Current liabilities held for sale | | 35.0 |
| Total current liabilities | | 2,066.4 |
| | | |
| Long-term debt, net of current portion | | 4,821.7 |
| Deferred taxes | | 963.7 |
| Other liabilities | | 204.9 |
| Liabilities held for sale | | 1.4 |
| Total liabilities | | 8,058.1 |

# Chapter 3

## Lawyers in the C-Suite: Balancing Strategic Narrative and Legal Risk in Earnings Calls[5]

[5] Authors: Achmad Faizal Azmi; Mahmoud Gad

***"You do all of your counseling with your client prior to getting on a conference call, right? I mean, conference calls and meetings are Kabuki Theater. You've got to do your work ahead of time!" - Martin Collins, general counsel of Novellus[6]***

## 3.1 Introduction

Lawyers now serve as executives in nearly half of U.S. public corporations.[7] How do they navigate the tension between risk management and value creation when integrated into corporate leadership? Over the past two decades, many firms have elevated their General Counsels (GCs) from traditional gatekeepers to strategic executives within the C-suite (DeMott, 2005; Ham and Koharki, 2016). This evolution presents a paradox: as GCs assume broader executive responsibilities, they must reconcile their fiduciary duty to manage legal risk with mounting pressure to craft narratives that enhance firm value (Bird et al., 2015). This tension manifests most clearly in earnings calls, where GCs balance legal prudence with the imperative to communicate value-creating narratives to capital markets - particularly given that misleading call statements trigger SEC enforcement actions (Rogers et al., 2011; Lerman et al., 2023).[8] We show that GCs address this tension through segmented messaging - guiding optimistic language in scripted Management Discussion sections while reinforcing caution during unscripted analyst Q&A.

GCs' dual mandate creates competing incentives: their legal training emphasizes caution and risk mitigation, yet their executive status aligns them with value-maximizing strategies that may favor optimistic disclosure. Earnings conference calls provide an ideal setting to examine these dynamics, with scripted Management Discussion (MD) sections allowing controlled messaging while unscripted Q&A sessions demand real-time risk assessment. These communications not only disseminate financial results but actively shape market perceptions (Matsumoto et al., 2011; Bae et al., 2023). With 71% of GCs reviewing earnings call content and 37% directly involved in script development (Polk, 2014), their influence on corporate narrative formation is substantial yet received limited attention, as prior

[6] Edited transcript of a panel presented to the Business and Organizational Ethics Partnership at the Markkula Center for Applied Ethics. More detailed transcript can be found in this link https://www.scu.edu/ethics/focus-areas/business-ethics/resources/roles-and-responsibilities-of-the-general-counsel/

[7] Based on our analysis of S&P 1500 firms, approximately 50% have General Counsels serving in top executive positions as of 2023. This represents an increase from 44% documented by Morse et al. (2016).

[8] The litigation stakes are documented, for example, the SEC's administrative order against Valeant specifically cited misleading earnings call statements, and Volkswagen executives' emissions fraud acknowledgment during a September 2015 conference call became central evidence in the SEC's subsequent fraud case. The SEC routinely scrutinizes these communications, often referencing earnings calls in enforcement comment letters (Lerman et al., 2023). Therefore, earnings calls represent documented litigation flashpoints where misleading statements trigger regulatory enforcement actions.

research has mainly examined how CEO and CFO communications during these calls (e.g., Matsumoto et al., 2011; Larcker and Zakolyukina, 2012).

Generally, GCs act as corporate gatekeepers, ensuring a cautious approach to earnings communications to mitigate litigation risk (Hopkins et al., 2015). With the Securities and Exchange Commission (SEC) actively monitoring these calls, the potential for regulatory scrutiny further reinforces the need for careful communication (Lerman et al., 2023). When GCs join top management, their executive status amplifies their visibility and accountability to stakeholders and regulators, placing them under greater scrutiny for legal outcomes (Kwak et al., 2012). However, when GCs join top management, their responsibilities often expand beyond legal compliance to include broader strategic considerations, aligning more closely with the priorities of other executives (DeMott, 2005). Morse et al. (2016) find that once a GC becomes a named executive with equity pay, monitoring effort falls and securities-law violations rise. This alignment with executive priorities can lead GCs to prioritize narrative strategies that enhance market valuation, favoring optimistic disclosures that bolster investor confidence and market perception. Moreover, the very incentives that bind GCs to executive teams - performance-based compensation, alignment with CEOs, accumulated tenure - may systematically influence how they navigate these competing demands.

We argue that GCs' influence on earnings calls depends on the communication context they face. The MD section, being a carefully scripted and controlled communication environment, allows GCs to collaborate with other executives in fine-tuning language to craft positive narratives that align with strategic priorities and resonate with investors. In contrast, the Q&A session involves unscripted, real-time exchanges with analysts, creating a higher risk of disclosing sensitive information and exposing the firm to litigation or reputational harm (Hollander et al., 2010; MacAvoy, 2015).[9] This unscripted nature requires GCs to focus more on mitigating legal risks by encouraging cautious language to minimize potential liabilities.

To test this prediction, we analyze earnings conference call transcripts from S&P 1500 firms over the period 2007 to 2023. Using language-based proxies such as net management tone, hedging language, and the frequency of "no answer" responses, we examine whether GCs in executive roles encourage a more cautious or optimistic tone during earnings calls. Our identification strategy exploits variation in GC presence across firms and time, comparing

[9] Recent enforcement actions and litigation illustrate this risk. In SEC v. Frissora (2020), the SEC quoted the CEO's Q&A response about holding-period assumptions as evidence of misrepresentation. In Petco (2025), plaintiffs cited Q&A acknowledgments as contradicting earlier positioning.

otherwise similar firms with and without executive-level GCs to isolate the effect of legal expertise on narrative formation.

We find evidence of segmented messaging: firms with GCs in top management exhibit significantly higher net positive sentiment in scripted Management Discussion sections, while these same firms demonstrate increased hedging language and more frequent "no answer" responses during unscripted Q&A sessions. These findings highlight the dual role of GCs in balancing optimism in structured narratives with risk mitigation in unscripted exchanges. Additionally, we examine two specific mechanisms rooted in the GC's integration into the executive team: performance-based incentives and alignment with the CEO. We find that the optimistic tone in the MD section is more pronounced when GCs receive higher performance-based compensation or align closely with CEOs, suggesting that financial incentives and executive alignment reinforce favorable communication strategies. In contrast, longer GC tenure amplifies the cautious tone in the Q&A session, consistent with experience enhancing risk management capabilities during unscripted interactions. Furthermore, we find that the cautious guidance by GCs in the Q&A session is stronger in firms facing higher ex-ante litigation risk, reinforcing the role of legal risk management in shaping real-time corporate disclosures. Together, these results illustrate how GCs' compensation, tenure, alignment with executives, and sensitivity to litigation risk shape the narrative tone in earnings calls, offering new insights into their role in corporate communication.

Finally, we conduct several robustness tests. First, we apply a switching sample approach, following Ham and Koharki (2016). Specifically, we limit our sample to firms that either appoint or demote the GC during the sample period. Second, we use entropy balancing to make sure that observations in the control group (non-GC firms) to closely match the characteristics of the treatment group (GC firms). Third, we control for CEO legal background by including a dummy variable indicating whether the CEO holds a law degree. Fourth, we re-estimate the main model including CEO fixed effects to absorb unobserved, time-invariant CEO characteristics (e.g., inherent risk aversion, personal communication style, preference for strong legal oversight). Finally, we conduct a falsification test using GCs who serve as corporate secretaries without top executive status, and find no significant association with disclosure tone, reinforcing that strategic executive authority, rather than board-facing roles, drives the observed effects. Our main findings remain robust across all these additional tests.

This study makes several contributions. We identify a novel mechanism through which legal expertise shapes corporate disclosure: segmented messaging that varies systematically across call segments. While prior research focuses on CEO and CFO communication styles

(Bamber et al., 2010; Ge et al., 2011), we examine the less studied role of GCs in guiding senior leadership communication (Bird et al., 2015). We show that legal executives create systematic variation within earnings calls by guiding strategic optimism in prepared remarks while enforcing legal caution in unscripted Q&A sessions.

Prior studies have provided mixed evidence on the role of GCs in shaping reporting quality. Kwak et al. (2012) find that GCs improve the accuracy and quantity of voluntary disclosures. Because voluntary disclosures, such as management forecasts, are verifiable after the fact, they create a potential basis for plaintiffs to claim that managers issued misleading statements. Meanwhile, Hopkins et al. (2015) document a negative impact of GC presence in top management on reporting quality, suggesting that GCs, influenced by market incentives, may sometimes tolerate earnings management practices that are less transparent than verifiable voluntary disclosures. By shifting the focus to narrative disclosures within earnings calls, our study offers a novel perspective that helps reconcile these findings. Specifically, we show GCs' influence is strategically context-dependent. This nuanced role helps explain why prior studies find mixed results: GCs' impact depends critically on the setting and litigation exposure.

Finally, this study also contributes to the use of earnings conference calls to infer managers' motives. Prior studies have analyzed managers' verbal and nonverbal communication during earnings conference calls to extract valuable information about their underlying motives (e.g., Brochet et al., 2015; Davis et al., 2015). However, conference calls are not solely influenced by a manager's motives; they are also shaped by a firm's economic fundamentals and, potentially, by the presence and guidance of the firm's GC (Hanlon et al., 2021). We extend research on managerial communication by showing how professional expertise shapes narrative choices beyond individual CEO characteristics. Our findings suggest that disclosure tone reflects not just managerial overconfidence or private information, but also institutional guidance from legal professionals who systematically balance value communication with risk management.

### 3.2 Literature Review and Hypothesis Development

#### 3.2.1 Legal Risk in Earnings Call

Earnings conference calls present unique legal risks for firms due to their real-time and interactive nature. Unlike formal written disclosures, which undergo multiple layers of review, the language used in earnings calls is more susceptible to managerial incentives and biases (Doran et al., 2012). Managers, driven by market expectations, may issue overly optimistic statements, increasing the firm's exposure to litigation if such statements are later deemed

misleading (Rogers et al., 2011). These dynamics not only heighten the risk of shareholder litigation but also attract regulatory attention from the SEC. These two sources of legal exposure, while related, operate through distinct mechanisms.

Litigation risk arises from shareholder lawsuits alleging securities fraud based on misleading statements. SEC regulatory scrutiny, in contrast, focuses on compliance with disclosure regulations and consistency between verbal communications and formal filings. The SEC closely monitors the content of earnings calls, and any inconsistencies between verbal disclosures during these calls and the firm's formal filings can lead to regulatory scrutiny. Firms may receive comment letters from the SEC questioning the consistency of their communications, resulting in increased compliance costs and potential reputational damage (Lerman et al., 2023). While the Private Securities Litigation Reform Act (PSLRA) offers safe harbor for forward-looking statements, this protection only applies if such statements include appropriate cautionary language (Johnson et al., 2001). Without proper legal oversight, firms risk making statements that fall outside this protection, exposing them to litigation risk. Despite their different legal mechanisms, both forms of risk reinforce the need for careful communication management during earnings calls. GCs, with their legal expertise, are well-positioned to manage both sources of risk.

In response to these risks, GCs play a critical role in ensuring that the language used in earnings calls adheres to legal standards and minimizes litigation exposure (Fabens and Sullivan, 2014). GCs are tasked with reviewing the narrative presented by management, ensuring that it aligns with regulatory expectations and is defensible in potential legal proceedings. By managing the legal and reputational risks inherent in the verbal communication during earnings calls, GCs help reduce the likelihood of misstatements or inconsistencies that could lead to shareholder litigation or regulatory scrutiny.

### 3.2.2 Dynamic Role of General Counsel

Traditionally, GCs have acted as gatekeepers to prevent firm personnel from acting inappropriately or against the law. That is, their main duty is to protect the firm from litigation risk by operating within the bounds of law (Hamdani, 2003). However, the role of GC has evolved significantly over time, shifting from a prestigious advisory position to a more complex role encompassing various responsibilities (DeMott, 2005). A survey by the Association for Corporate Counsel (2016) stated that in addition to overseeing the legal department, GCs increasingly find themselves at the executive table to advise on company

strategy. Consequently, GCs are now expected to contribute to strategic decision-making in addition to their traditional monitoring responsibilities.

With this dynamic role, GCs are increasingly promoted to senior management, resulting in substantial status and compensation increases (Ham and Koharki, 2016). When becoming senior management, GC compensation could be tied to the firm's performance, thus incentivizing them to increase the firm's value. This creates a dual mandate for executive GCs: maintaining their gatekeeping function while also contributing to firm value as senior management (Bird et al., 2015). Rather than abandoning their gatekeeping role, executive GCs may instead adopt a more sophisticated, context-dependent approach to managing legal risk and strategic communication.

### 3.2.3 Hypothesis Development

Over the past decade, the use of conference calls as a method of voluntary disclosure has grown significantly (Bae et al., 2023). In addition to presenting new disclosures, managers also verbally share information, which can be highly informative to the market due to the valuable insights conveyed through verbal cues (Matsumoto et al., 2011). In preparing these conference calls, all senior management are expected to have a meeting about the financial results and what the messaging should be (Brown et al., 2019).

In any public disclosure, companies rarely proceed without input from their GC, who provide essential guidance to ensure content aligns with regulatory and legal standards (Beardslee, 2010). This oversight is especially crucial in earnings calls, where managers exercise discretion over private information disclosure (Cohen et al., 2020). Moreover, there is a chance that managers providing misleading statements, which could increase the firm’s litigation risk. Thus, GCs need to ensure that the information content delivered through verbal cues are aligned with their firm's legal and reputational interest.

With the current trend of including GCs within top management, it is unclear whether this development could influence their role within the context of narrative disclosure's language. Traditionally, as corporate gatekeepers, GCs have an incentive to ensure that managers adopt a cautious and risk-averse approach during earnings conference calls. This cautious approach is especially relevant when considering the risks associated with overly optimistic disclosures. A more positive tone in qualitative disclosures is associated with a higher likelihood of subsequent shareholder litigation (Rogers et al., 2011).

By joining top management as highly compensated named executives, GCs face fundamentally different reputational stakes compared to non-executive legal counsel.

Executive-level GCs are publicly identified in proxy statements as top-five compensated officers, making them visible targets when legal issues arise. Moreover, their high compensation signals substantial decision-making authority within the firm, increasing expectations of their personal accountability for legal outcomes (Kwak et al., 2012). These heightened personal consequences stemming specifically from their compensation rank and executive visibility amplify their incentives for risk-averse behavior in high-exposure settings. As a result, one could argue that the inclusion of GCs in top management may lead to a more cautious tone in management's language during earnings conference calls

On the other hand, once GCs are part of top management, their incentives may shift. As their compensation and career prospects become tied to the firm's performance, GCs might align more closely with other executives (Morse et al., 2016). This shift in incentives may lead GCs to prioritize narrative choices that support market valuation over strict risk management, favoring disclosures that present the firm in an optimistic light. Consequently, GCs may increasingly emphasize a positive narrative to bolster investor confidence and market perception, downplaying certain risks to maintain alignment with shareholder and executive expectations. This alignment with other executives' priorities, therefore, encourages GCs to balance their traditional risk-averse stance with a commitment to portraying the firm's prospects favorably.

This shift in priorities not only alters their role but can also reduce their traditional gatekeeping responsibilities. As GCs become incentivized to promote the firm's growth and success, they may focus on shaping a more favorable narrative during earnings calls, reflecting either a more positive outlook or strategic framing of the information shared. Prior studies have found that the inclusion of GCs in top management is associated with more aggressive corporate behaviors, such as lower earnings quality (Hopkins et al., 2015), higher credit risk (Ham and Koharki, 2016), and increased tax aggressiveness (Abernathy et al., 2016). Therefore, their inclusion in top management could lead to less cautious language in earnings calls, as GCs align with broader executive incentives to maximize firm value. As a result, we develop hypothesis in the null form:

*H1: The inclusion of a GC in top management has no effect on the degree of caution in the firm's disclosure language during earnings conference calls*

Building on the argument that the inclusion of a GC in top management might influence the overall tone of earnings call disclosures (H1), it is important to consider how this influence

might differ across specific sections of the call. MD represents a uniquely controlled communication environment that differs fundamentally from the spontaneous Q&A session. The MD section of earnings calls is typically scripted and focuses on presenting the firm's strategic narrative and financial performance. Unlike Q&A interactions where responses must be generated in real-time, the MD section is meticulously scripted, allowing management to exercise precise control over the content and tone of disclosures. This structured approach allows firms to align their messaging with strategic priorities while minimizing risks. Brown et al. (2019) highlight that substantial effort is invested in preparing the presentation portion of earnings calls, including writing scripts, rehearsing, and developing strategies to handle potential questions. These preparations ensure that the MD section effectively communicates the firm's narrative in a consistent and controlled manner, supporting both strategic goals and investor expectations.

This controlled environment creates three distinct advantages for GCs to shape corporate narrative. First, GCs can participate in strategic message crafting from inception rather than merely conducting ex-post legal reviews. Their executive status enables them to proactively suggest optimistic language while ensuring legal defensibility, rather than simply rejecting problematic statements. Second, GCs' direct access to strategic information through their executive position enables better assessment of which positive statements are supportable, allowing them to push optimistic messaging to its legitimate limits while maintaining legal compliance. Third, the iterative nature of MD preparation allows GCs to work collaboratively with other executives to optimize language choice, fine-tuning positive messages to maximize impact while minimizing legal exposure.

Building on these advantages, the structured nature of MD preparation allows GCs in top management to extend their influence beyond traditional legal oversight. With responsibilities often expanding to include broader strategic considerations (DeMott, 2005), GCs gain the opportunity to actively shape the firm's narrative in ways that align with executive priorities. Performance-based compensation, such as bonuses or stock awards, further incentivizes GCs to focus on strategies that enhance short-term market valuation, encouraging optimistic messaging while maintaining legal compliance.[10] By leveraging their executive status, GCs can guide the preparation of the MD section to craft narratives that emphasize the firm's strengths, resonating with investor expectations. This proactive role ensures that

[10] Report from Bachman (2024) shows that general counsel compensation has increased about 25% over the past four years. This increased is mainly driven by stock awards and performance incentives. See https://www.legaldive.com/news/higher-gc-compensation-usually-means-less-cash-and-more-equity-bonuses/728195/ for more details about this.

messaging in the MD section balances optimism with legal defensibility, bolstering investor confidence while supporting the firm's strategic goal. Consequently, GCs' influence in this structured context may lead to less cautious and more optimistic language. Thus, the second hypothesis is:

*H2: The inclusion of a GC in top management is associated with less cautious language in the MD section of earnings calls.*

Unlike the MD section, which is carefully prepared in advance, the Q&A session is less controlled and carries a higher risk of disclosing sensitive or legally risky information. Analysts often target areas of uncertainty, probing for additional details and challenging management's interpretations, which can reveal information not included in the prepared remarks (Matsumoto et al., 2011). These probing questions can create pressure for executives to provide additional context or clarification, increasing the risk of inadvertent disclosure of sensitive information. In addition, this unscripted nature increases the complexity for management in maintaining a consistent narrative and avoiding statements that could lead to litigation risks or reputational harm.

The unscripted environment magnifies legal exposure in ways that are particularly salient to GCs. While prepared statements can be vetted for legal compliance, real-time responses require immediate risk assessment. For GCs in executive positions, this heightened risk is particularly concerning because their TMT status amplifies their personal accountability for corporate legal outcomes (Kwak et al., 2012). Their elevated position makes them more visible targets for regulatory scrutiny and shareholder litigation, intensifying their motivation to ensure robust risk management during these spontaneous exchanges.

Thus, in the Q&A session, where unscripted exchanges increase the likelihood of sensitive disclosures, GCs may encourage the use of hedging language to reduce legal exposure and ensure responses are carefully managed. Their inclusion in the executive team enhances their authority, allowing them to guide management more effectively in preparing responses to analysts questions. Thus, the third hypothesis is:

*H3: The inclusion of a GC in top management is associated with more cautious language in the Q&A section of earnings calls*

### 3.3 Research Design

#### 3.3.1 Sample Selection

We construct our sample using conference call transcripts for the rolling S&P 1500 firms from the Capital IQ database over the period 2007 to 2023. We begin the sample in 2007, as Capital IQ coverage expands significantly from that year onward. We focus exclusively on earnings conference calls, identified using the metadata label "keydeveventtypename" marked as "Earnings Call". Our sample is limited to S&P 1500 firms because ExecuComp provides executive compensation data primarily for this group. We obtain firm-level financial data from Compustat, analyst forecast data from I/B/E/S, and CEO characteristics from ISS and Boardex. We exclude observations with missing values for any of the regression variables. All continuous variables are winsorized at the 1st and 99th percentiles to mitigate the influence of outliers. After merging the datasets and excluding missing values, our final sample consists of 14,191 firm-year observations for the main analysis.

#### 3.3.2 Identifying General Counsel

Following prior studies (Ham and Koharki, 2016; Black et al., 2022), we identify whether the GC is a member of the top management team via the annual job titles provided by Execucomp. Specifically, we search for words "counsel", "law", "legal", and similar variants to identify executives who are general counsels. Moreover, we manually clean the data by excluding some words that have "counsel" but not referring to legal experts such as tax counsel, investment counsel, and intellectual property counsel. Following prior studies, we define GC as a member of top management team when she/he is among the top-five highest paid executives. Compensation rank provides a reasonable proxy for managerial influence, as higher-paid executives are more likely to be involved in strategic decisions and hold greater power within the firm's hierarchy (Bebchuk et al., 2011).

#### 3.3.3 Measuring Language Caution in Earnings Conference Call

To capture the cautiousness of management language during earnings conference calls, we employ several proxies. First, we measure the net management tone. Rogers et al. (2011) find that a more positive tone in qualitative disclosures is associated with a higher likelihood of subsequent shareholder lawsuits. This suggests that more optimistic language may be perceived as less cautious, as it can attract greater scrutiny from potential plaintiffs. First, we use the net management tone in earnings conference calls. While Loughran and McDonald

(2011) is widely used, García et al. (2023) offer a more advanced, machine learning-based sentiment dictionary specifically trained on stock price reactions. This allows their dictionary to better capture the nuances of language used in financial contexts, particularly in complex disclosures like earnings calls. García et al.'s method outperforms the traditional bag-of-words approach used by Loughran and McDonald (2011) by incorporating bigrams and offering more precise sentiment analysis, making it better suited for financial communication analysis.[11] We calculate net management tone in earnings conference call as the number of positive bigrams minus the number of negative bigrams divided by the number of bigrams:

*Tone = 100 × (Positive Bigrams – Negative Bigrams) / Total Bigrams*

Second, we use the proportion of hedging language in earnings calls as a proxy for linguistic caution. Specifically, we analyze the difference in the use of weak versus strong modal verbs. Modal verbs serve as a linguistic tool to express varying degrees of certainty, where weak modal verbs, such as "could," "depending," "might," and "possibly," indicate uncertainty and caution, while strong modal verbs, such as "always," "highest," "must," and "will," convey confidence and certainty about the presented information (Loughran and McDonald, 2011). The prevalence of weak modal verbs suggests that firms are being cautious in their statements, signaling to stakeholders that key messages or expectations are subject to external factors or uncertainties. Conversely, strong modal verbs provide a sense of assurance and authority, implying that firms are more confident in their projections and commitments.

*Hedge = 100 × (Weak modal verbs – Strong modal verbs)/Total Words*

Third, we use the proportion of "no answer" responses in the question-and-answer (Q&A) session of earnings calls as a proxy for management's reluctance to disclose sensitive or uncertain information. When management avoids directly answering questions, it may indicate a deliberate attempt to withhold information that could reveal vulnerabilities, uncertainties, or strategic plans they prefer not to disclose. By measuring the frequency of "no answer" responses, we aim to capture the firm's approach to managing disclosure risks, especially in uncertain or complex situations. This proxy reflects the extent to which management seeks to balance transparency with the need to protect competitive advantages or

[11] We thank Tim Loughran and Bill McDonald for making their sentiment dictionary publicly available at https://sraf.nd.edu/loughranmcdonald-master-dictionary/. We also thank Diego García, Xiaowen Hu, and Maximilian Rohrer for making their machine learning-based sentiment dictionary publicly available at https://data.mendeley.com/datasets/37x3jsf488/2.

avoid legal risks. A higher proportion of 'no answer' responses suggests that the firm is exercising caution in its disclosures, indicating a risk-averse communication strategy. We follow Gow et al. (2021) to identify answers that categorized as "no answer".[12] They developed a classification algorithm based on regular expressions designed to detect key phrases of no answer responses. These phrases indicate either a refusal to provide information (e.g., "we do not disclose this"), an inability to provide the requested information (e.g., "I don't know"), or a suggestion to discuss the matter after the call (e.g., "let's discuss this offline").

*NoAnswer = 100 × (No answer responses/Total responses)*

### 3.3.4 Multivariate Tests – General Counsel and Language Caution in Earnings Call

To empirically examine the relationship between the inclusion of a GC in top management and the level of caution in language used during earnings conference calls, we develop the following multivariate regression model:

$$DEPVAR_{it} = \alpha_0 + \alpha_1 GC_{it} + \sum_{k=2}^{9} \alpha_k X_{k,it} + \gamma_i + \delta_t + \epsilon_{it}$$

The model is estimated separately for each dependent variable capturing distinct attributes of earnings call language for firm *i* in year *t*. Where $DEPVAR_{it}$ is either $Tone_{it}$, $Hedge_{it}$, or $NoAnswer_{it}$. $TONE_{it}$ is the annual average of the net management tone in earnings conference call for firm i in year t. $Hedge_{it}$ is the annual average of the proportion of hedge tone in the earnings conference call. $NoAnswer_{it}$ is the annual average of the proportion of no answer response in the earnings conference call.

The variable of interest is $GC_{it}$, an indicator variable that takes 1 if the firm's GC is listed among the top-five highest-paid executives (as reported in the firm's proxy statement) for fiscal year *t*, and 0 otherwise. This serves as our proxy for the GC holding significant executive status and influence within the TMT. The coefficient $\alpha_1$captures the estimated incremental effect associated with having a GC in the TMT on the respective language measure.

We include a vector of control variables to account for firm characteristics and performance factors known to influence communication style and content. Consistent with Davis et al. (2015), we control for contemporaneous performance relative to expectations and overall profitability: $MBE_{it}$ (dummy for meeting/beating analyst consensus earnings forecast),

[12] We thank Ian D. Gow for making his no-answer classification algorithm publicly available at https://github.com/iangow/ling_features/tree/master/non_answer.

$LOSS_{it}$ (dummy for reporting a net loss), $RET_{it}$ (annual market-adjusted stock return), and $ROA_{it}$ (return on assets). In addition, we control for $SIZE_{it}$ (natural logarithm of market capitalization, proxying for visibility and complexity), $GROWTH_{it}$ (annual sales growth), and $LEVERAGE_{it}$ (long-term debt divided by market capitalization, proxying for financial risk). Following Bochkay et al. (2019)'s findings on CEO tenure and optimism, we include $CEOTENURE_{it}$ (number of years the CEO has been in the position) to control for potential CEO-specific communication shifts over time.

We include Year Fixed Effects ($\delta_t$) to absorb any year-specific shocks common to all firms, such as changes in the macroeconomic environment, major regulatory shifts, or overall market sentiment trends. In addition, we add Firm Fixed Effects ($\gamma_i$) to capture all time-invariant unobserved heterogeneity across firms, such as stable differences in, e.g., corporate culture, governance philosophy, or baseline disclosure transparency. We estimate the model using OLS and calculate standard errors clustered at the firm level.

### 3.4 Results

#### 3.4.1 Descriptive Statistics

Table 3.1 provides descriptive statistics for all variables used in the main regression analysis. We find that 42.8% of GC in the sample observations are included in the top management. Consistent with previous studies, we observe a notable increase in the inclusion of GCs in senior management over the sample period. Table 3.2 shows the distribution GC in the top management team over the sample years. In the earlier years of the sample, the proportion of firm-years with a GC in senior management was less than 30 percent, but this figure rose to over 50 percent in the later years. This growing presence of GCs highlights the importance of examining the impact of their influence on language used in earnings call. Prior studies have similarly documented an increase in the prevalence of GCs among highly paid executives (e.g., Ham and Koharki, 2016; Black et al., 2022).

#### 3.4.2 Baseline Results – GC and Language Caution in Earnings Call

Table 3.3 reports the results from estimating equation (1), where we examine the influence of GC in top management on earnings call communication. The coefficient of *GC* is positive (0.127) and statistically significant at the 5% level for overall sentiment, indicating that having a GC in top management is associated with a 4.6% increase relative to one standard deviation of *Tone*. Simultaneously, the *GC* coefficient is positive (0.011) and significant at the 1% level for hedging language, representing a 6.1% increase relative to one standard deviation

of *Hedge*. Additionally, GCs are associated with a positive coefficient (0.305) significant at the 1% level for no-answer responses, representing a 5.4% increase relative to one standard deviation of *NoAnswer*. Rather than reflecting inconsistent behavior, this pattern reveals GCs' dual messaging strategy: they guide more optimistic overall language while simultaneously increasing cautious communication behaviors. These effects, while modest individually, form a coherent pattern suggesting that GCs systematically balance strategic messaging with legal risk management. This dual approach reflects the different risk profiles within earnings calls - prepared remarks allow controlled optimistic messaging, while unscripted analyst interactions require greater legal caution. The following section directly tests this segmented messaging hypothesis by examining how GC influence varies between the structured MD section and unscripted Q&A session.

### 3.4.3 Baseline Results – Differentiating between Management Discussion and Q&A Session

As the analysis in section 3.4.2 yields mixed evidence regarding the effect of GC in top management on earnings call language, we further break down the analysis by separately examining the MD and Q&A sessions. This distinction allows for a more nuanced understanding of how GCs may influence different parts of the earnings call. The MD session often focuses on presenting strategic narratives, while the Q&A session typically involves more spontaneous and potentially challenging exchanges with analysts, which may provoke different communication strategies. GCs, being responsible for mitigating legal risk, may guide the earnings call speaker to be more cautious during the Q&A session to avoid disclosing information that could increase the firm's exposure to litigation. This heightened sensitivity to legal risk may lead to more cautious or evasive responses in the Q&A, especially when facing probing questions that could reveal vulnerabilities or uncertainties. Since 'no answer' responses are confined to the Q&A session, they are not further analyzed here, as we already discussed it in previous sections.

Table 3.4 shows the results from further examining the effects of having a GC in top management by distinguishing between the MD and Q&A sections of earnings calls. In columns (1) and (2), the results reveal that the association between GC presence and net sentiment is only statistically significant in the MD section. This can be attributed to the controlled nature of the MD, where GCs may encourage executives to highlight positive aspects of the firm while managing legal risks. The presence of a GC likely results in a more

optimistic tone, as GCs guide management to frame the narrative in a way that boosts investor confidence without crossing legal boundaries.

Conversely, columns (3) and (4) reveal that the association between GC presence and hedge words is significant only in the Q&A section, supporting the idea that GCs guide management to employ more cautious and legally-conscious language in response to probing questions.

These results show that GCs influence a more optimistic tone during the prepared remarks, such as the MD section, where they can help management shape the narrative to present the company in a favorable light. However, GCs encourage a more cautious stance during the unscripted portions, such as the Q&A session, where the risk of disclosing sensitive or legally risky information is higher. This careful balance between optimism and caution highlights the dual role of GCs in supporting executives to promote optimism while safeguarding the firm from legal exposure.

### 3.4.4 Incentive Effect of GC on the Tone of Management Discussion Session

In this section, we investigate some factors that could increase the incentive of GCs to tolerate a more optimistic tone during the MD session. First, we argue that performance-based compensation may align GCs' incentives more closely with other top executives. As GCs are increasingly rewarded based on the firm's financial performance, they might prioritize delivering a more positive narrative to boost investor confidence. This optimism can potentially enhance stock prices and meet performance targets tied to their compensation packages. As their pay becomes contingent on firm performance, GCs may shift from their traditional gatekeeping role to more actively shaping optimistic disclosure that reflects well on the firm. Thus, GCs with higher performance-based compensation may tolerate or even encourage a more optimistic tone in earnings calls to align with shareholder expectations and executive incentives.

To analyze the influence of performance-based compensation on the relationship between GC in top management and net sentiment in the MD section, we develop two indicator variables: GC with high performance-based compensation (*GC_HighComp*) and GC with low performance-based compensation (*GC_LowComp),* based on the median proportion of compensation tied to firm's performance. In the sample, 42.8% of firm-years include a GC in top management, while 57.2% do not. We examine the effect of *GC_HighComp* and *GC_LowComp* on net sentiment in MD section relative to firms without GC in top management.

The results in Table 3.5 column (1) show a statistically significant positive association between *GC_HighComp* and *Tone_MD*. This finding suggests that GCs with higher performance-based compensation are more likely to influence the MD tone toward optimism. This aligns with the expectation that when GCs' financial incentives are closely tied to firm performance, they adopt a more positive stance, likely to support broader strategic goals. This is consistent with the shift in GCs' roles, from their traditional function as risk managers to contributors to a favorable narrative when their compensation aligns with the company's financial success.

In contrast, the results in Table 3.5 column (2) show statistically insignificant negative association between *GC_LowComp* and *Tone_MD*, suggesting that GCs with lower performance-based compensation do not have a meaningful influence on the tone in the MD section. This result indicates that without strong financial incentives, GCs may be less inclined to shape the optimistic tone of the MD session,

A Chi-squared test further confirms a statistically significant difference between the coefficients of *GC_HighComp* and *GC_LowComp*, highlighting how performance-based compensation can drive different behaviors in GCs. Overall, these findings show that GCs with higher financial incentives are more likely to play an active role in shaping optimistic language in the MD section.

### 3.4.5 Co-opted GC and Tone in Management Discussion Session

Then, we argue that when GCs are coopted by the CEO, their decision-making may reflect a closer alignment with the CEO's strategic vision, further increasing the likelihood of a more optimistic tone during MD sessions. Cooptation refers to situations where executives are appointed by the CEO. Directors who are appointed by the CEO tend to be more aligned with and supportive of that CEO's decisions and strategies (Shivdasani and Yermack, 1999; Coles et al., 2014). Thus, coopted GCs may feel pressure to present a more favorable outlook in order to maintain alignment with the CEO's objectives and reinforce their position within the executive team. This close relationship between the GC and CEO may reduce the GC's tendency to act as a gatekeeper and increase their involvement in crafting a positive, market-friendly narrative. By prioritizing the CEO's goals, coopted GCs may contribute to more favorable disclosures that reflect the firm's strategic outlook.

Similar to the section 3.4.4, we develop two indicator variables: *GC_Coopt* and *GC_NoCoopt*, in which the former is an indicator variable with the value of 1 if GC joined the

office after CEO assumed the office, and 0 otherwise. We examine the effect of *GC_Coopt* and *GC_NoCoopt* on net sentiment in MD section relative to firms without GC in top management.

The results in Table 3.5 column (2) show a statistically significant positive association between *GC_Coopt* and *Tone_MD*. This indicates that when GCs are coopted by the CEO, they are more likely to influence the MD tone toward optimism. This reflects the alignment of GCs with the CEO's generally optimistic outlook on the firm's performance, leading to more positive language in earnings call disclosures. On the other hand, we do not find a statistically significant association between *GC_NoCoopt* and *Tone_MD*, suggesting that GCs who are not coopted may act more independently and exercise greater caution in their communication strategies.

A Chi-squared test further confirms a statistically significant difference between the coefficients of *GC_Coopt* and *GC_NoCoopt*. This result indicates that GCs who are coopted by the CEO are more likely to align with the CEO's optimistic outlook on firm performance, contributing to a more positive tone in the MD section. Moreover, these findings demonstrate that coopted GCs play a more active role in shaping the optimistic language used during earnings calls, reflecting their closer alignment with the CEO's strategic goals. On the other hand, GCs who are not coopted may maintain a more cautious approach, resulting in less influence over the tone in the MD section.

### 3.4.6 GC Tenure and Caution in the Earnings Call Q&A Section

We argue that GC tenure could play an important role in shaping how they influence corporate communication, particularly in managing the disclosure of sensitive or uncertain information. Over time, longer-tenured GCs are likely to gain deeper familiarity with both the firm’s operations and its legal environment, enhancing their authority within the executive team. In unscripted settings, such as the Q&A section of earnings calls, where the risk of legal or reputational exposure increases, longer-tenured GCs may brief the CEO to adopt a more cautious communication strategy. This could involve using more cautious language and minimizing direct answers.

In this section, we examine the relationship between GC tenure and caution in the Q&A session. Specifically, we analyze whether GCs with longer tenure influence more cautious responses, including a higher incidence of 'no answer' responses and hedge modal verbs, which may reflect an increased emphasis on mitigating litigation risks and protecting the firm from legal liabilities.

We develop two indicator variables: GC with high tenure (*GC_HighTen*) and GC with low tenure (*GC_LowTen),* based on the median of GC tenure. We examine the effect of *GC_HighTen* and *GC_LowTen* on both proportion of hedge tone and no answer response in Q&A section relative to firms without GC in top management.

The results in Table 3.6 column (1) show that there is positive statistically significant association between *GC_HighTen* and *Hedge_QA*. This result implies that GCs with higher tenure are more likely to influence the use of hedge modal verbs in the Q&A section, indicating a more cautious approach to managing unscripted communication. On the other hand, we do not find a statistically significant association between *GC_LowTen* and *Hedge_QA*, suggesting that GCs with lower tenure may have less influence over the hedging language used in the Q&A section.

Similarly, the results in Table 3.6 column (2) indicate a significant positive relationship between *GC_HighTen* and *NoAnswer*, further supporting the notion that longer-tenured GCs tend to steer the conversation toward minimizing risks. Meanwhile, we do not find a statistically significant association between *GC_LowTen* and *NoAnswer.*

A Chi-squared test further confirms a statistically significant difference between the coefficients of *GC_HighTen* and *GC_LowTen* in both column (1) and (2) of Table 3.6. Overall, these findings highlight the role of experienced GCs in shaping cautious communication strategies, particularly in scenarios where firms face greater scrutiny from analysts and investors.

### 3.4.7 GC and Ex-ante Litigation Risks in the Earnings Call Q&A Section

We argue that the role of GCs are likely to vary depending on the firm's exposure to litigation risk. In high-risk environments, firms may face greater legal scrutiny, prompting GCs to adopt more cautious disclosure strategies. Conversely, in low-risk settings, GCs may be more comfortable allowing managers to convey a more optimistic tone or provide clearer responses. This differentiation is important for understanding whether GCs act as static enforcers of disclosure norms or as adaptive communicators who tailor their guidance to the legal environment surrounding the firm.

In this section, we examine whether the influence of GCs on corporate communication differs between high and low litigation risk contexts. Specifically, we classify firm-years with a GC into two groups: GC*_HighRisk* and GC*_LowRisk*, based on whether their ex-ante litigation risk lies above or below the sample median. We calculated the ex-ante litigation risk based on measure provided by Kim and Skinner (2012).

The results in Table 3.7 column (1) show that *HighRisk* is associated with significantly more hedging language in the Q&A session, and the difference between *HighRisk* and *LowRisk* is also statistically significant. This indicates that GCs in high-risk contexts are more likely to guide managers toward cautious responses in unscripted exchanges.

The results in column (2) for no-answer responses show a similar directional pattern: *HighRisk* is associated with a higher incidence of non-answers compared to *LowRisk*. However, unlike the previous outcomes, the difference between the two is not statistically significant, possibly due to greater noise in this measure.

Overall, these findings provide further support for our central argument that GCs in top management are not merely gatekeepers of legal compliance, but active participants in shaping communication strategies, adjusting their influence in response to the firm's exposure to legal risk and depending on the nature of the exchanges.

### 3.4.8 Robustness Tests – Switching Sample and Entropy Balancing

A primary challenge in identifying the effect of GC TMT status is potential selection bias, where firm characteristics might drive both the decision to elevate the GC and the firm's disclosure language. We employ two distinct approaches to mitigate such concerns.

First, to address bias stemming from persistent, unobserved differences between firms, we adopt a switching sample methodology (Ham and Koharki, 2016). This analysis restricts the sample to firms observed appointing or demoting a GC from the TMT during our period. By focusing on within-firm changes, this approach effectively allows each firm to serve as its own control, differencing out stable firm-specific heterogeneity. Table 3.8 presents the results from re-estimating our main specifications on this switching sample; our core inferences remain unchanged.

Second, to ensure our results are not driven by differences in observable characteristics between treated (GC in TMT) and control (no GC in TMT) firms, we use entropy balancing (Hainmueller, 2012). This approach iteratively adjusts weights on control observations to achieve balance on covariates between GC and non-GC firms, thereby addressing differences in their distributions without discarding observations. Entropy balancing retains the entire control sample by optimizing weights to achieve balance. Table 3.9 presents the results from estimating the main test using entropy balancing, and our inferences remain unchanged.

### 3.4.9 Robustness Test – Controlling for CEO Legal Background

A potential source of omitted variable bias arises if the CEO's own legal background simultaneously influences disclosure tone and is correlated with the decision to include the GC in the TMT. Specifically, CEOs with legal training might directly shape disclosure tone (e.g., through their risk preferences) and could also differ in their propensity to elevate or rely on a GC in a senior executive role. Failure to account for the CEO's background could therefore lead to a biased estimate of the GC TMT effect. To account for this, we classify a CEO as having a legal background if they hold a terminal law degree (such as a J.D. or Ph.D. in Jurisprudence), another law degree (such as an L.L.M.), or an undergraduate degree in law (such as an L.L.B.). Including this control helps ensure that the estimated effect of the GC is not confounded by the CEO's own legal expertise. We re-estimate the main model including dummy variable with the value of 1 if CEO has a legal background (*Lawyer*). Table 3.10 presents the results from estimating main test after controlling for CEO with legal background, and the inferences remain unchanged after including this control.

### 3.4.10 Robustness Tests – CEO Fixed Effect

A concern with our analysis is that a specific CEO may have stable characteristics (e.g., inherent risk aversion, personal communication style, preference for strong legal oversight) that simultaneously drive both the decision to elevate the GC to the TMT and the tone of earnings calls. While our primary models include firm fixed effects, these do not fully account for CEO-specific attributes, especially given potential CEO turnover during our sample period.

To mitigate this concern, we enhance our main empirical specification by incorporating CEO fixed effects alongside our standard firm and year fixed effects. This approach isolates the estimated effect of GC TMT presence by relying on variation within a given firm during the tenure of the same CEO. By absorbing stable unobserved heterogeneity at both the firm and CEO levels, this specification provides a more stringent test of the GC's distinct influence on earnings call language, net of persistent firm- and leader-specific factors. Table 3.11 shows that including CEO fixed effects does not alter our main findings, confirming that GC influence on segmented messaging operates independently of stable CEO characteristic.

### 3.4.11 Falsification Tests – General Counsel with Corporate Secretary Role

To further support the identification of GCs' influence through executive power, we conduct a falsification test using an alternative proxy: whether the GC also holds the role of corporate secretary. This role provides board-facing access and visibility but does not

necessarily entail strategic decision-making authority or top management team membership. If the observed effects are merely driven by board proximity or governance access, one would expect a similar association between the corporate secretary role and narrative tone. However, Table 3.12 shows that there is no statistically significant association when GCs serve as corporate secretaries but are not among the top five highest-paid executives (*GC_Corsec*). This finding suggests that it is the GC's executive status, rather than board-facing formality alone, that enables meaningful influence over disclosure tone. It reinforces the view that substantive strategic authority, not just formal access, underpins the observed effects.

### 3.5 Conclusion

This study investigates the influence of GC inclusion in top management on the tone and cautiousness of language used in earnings conference calls. We document a segmented messaging strategy whereby GCs systematically vary their influence across different communication contexts. We find that the presence of a GC in top management leads to a more optimistic tone in the MD section, while guiding a more cautious approach in the Q&A session. Specifically, GCs' involvement is associated with higher net sentiment in MD section, while there is an increased use of hedging language and "no answer" responses during the unscripted Q&A, reflecting an emphasis on managing legal risks in analyst-driven exchanges.

Meanwhile, we find that the impact of GC presence in top management on the optimistic tone in the MD section is more pronounced when GCs receive higher performance-based compensation, suggesting that financial incentives strengthen the alignment between GCs and broader executive objectives, leading to more favorable language in disclosures. Additionally, this effect is heightened when GCs are co-opted by the CEO, implying that the alignment between GC and CEO goals encourages a more optimistic communication strategy within structured disclosure settings. In contrast, we observe that longer GC tenure has a more substantial impact on the use of hedging language and "no answer" responses in the Q&A section, reflecting a cautious approach to unscripted communication. Furthermore, we find that GCs guide a more cautious communication style in the Q&A session for firms with high ex-ante legal risk, suggesting that legal risk considerations amplify GCs' emphasis on risk mitigation during analyst-driven exchanges.

These findings show that GCs in top management influence corporate communication differently across the structured and unscripted portions of earnings calls, reflecting the distinct risk profiles between the MD and Q&A sections. In controlled, scripted settings like the MD section, GCs contribute to more optimistic messaging aligned with strategic goals. In contrast,

in the unscripted and higher-risk environment of the Q&A session, GCs promote more cautious communication to mitigate legal exposure. This study contributes to a deeper understanding of GCs' dual role in balancing strategic messaging and legal risk management in corporate communication.

Table 3.1 Descriptive Statistics

| | N | Mean | p25 | Median | p75 | SD |
|---|---|---|---|---|---|---|
| *Tone* | 14,191 | 2.380 | 0.519 | 2.405 | 4.297 | 2.792 |
| *Hedge* | 14,191 | -0.100 | -0.216 | -0.096 | 0.017 | 0.179 |
| *NoAnswer* | 14,191 | 11.243 | 7.143 | 10.616 | 14.703 | 5.619 |
| *GC* | 14,191 | 0.428 | 0 | 0 | 1 | 0.495 |
| *Size* | 14,191 | 8.254 | 7.072 | 8.078 | 9.301 | 1.629 |
| *ROA* | 14,191 | 0.051 | 0.020 | 0.053 | 0.091 | 0.083 |
| *MBE* | 14,191 | 0.616 | 0.000 | 1 | 1 | 0.486 |
| *Loss* | 14,191 | 0.150 | 0.000 | 0 | 0 | 0.357 |
| *RET* | 14,191 | 0.107 | -0.142 | 0.064 | 0.294 | 0.410 |
| *Growth* | 14,191 | 0.077 | -0.015 | 0.058 | 0.145 | 0.208 |
| *Leverage* | 14,191 | 0.351 | 0.048 | 0.179 | 0.398 | 0.587 |
| *CEOTenure* | 14,191 | 9.227 | 3.000 | 7 | 13 | 8.685 |

Table 3.1 shows the descriptive statistics for all variables used in the regression analyses. Variables are defined in Appendix B.1

Table 3.2 Distribution of GC in Top Management

| Year | Percentage |
|---|---|
| 2007 | 26.93% |
| 2008 | 30.50% |
| 2009 | 30.75% |
| 2010 | 36.59% |
| 2011 | 38.43% |
| 2012 | 38.91% |
| 2013 | 40.97% |
| 2014 | 42.40% |
| 2015 | 42.53% |
| 2016 | 44.15% |
| 2017 | 46.71% |
| 2018 | 44.26% |
| 2019 | 46.01% |
| 2020 | 49.53% |
| 2021 | 50.32% |
| 2022 | 50.76% |
| 2023 | 51.09% |

Table 3.2 reports the distribution of GC in top management over the sample years.

Table 3.3 GC in Top Management and Earnings Narrative Disclosure

| | (1) | (2) | (3) |
|---|---|---|---|
| VARIABLES | *Tone* | *Hedge* | *NoAnswer* |
| *GC* | 0.127** | 0.011*** | 0.305*** |
| | (2.533) | (2.692) | (2.636) |
| *Size* | 0.002 | 0.018*** | 0.253 |
| | (0.035) | (3.698) | (1.606) |
| *ROA* | 3.813*** | 0.091*** | 2.388** |
| | (9.269) | (3.172) | (2.370) |
| *MBE* | 0.350*** | 0.002 | 0.027 |
| | (9.480) | (0.678) | (0.318) |
| *Loss* | -0.485*** | -0.008 | 0.583*** |
| | (-6.532) | (-1.463) | (3.077) |
| *RET* | 0.784*** | 0.009** | -0.352*** |
| | (16.190) | (2.540) | (-2.988) |
| *Growth* | 0.923*** | -0.010 | -0.284 |
| | (8.871) | (-1.487) | (-1.211) |
| *Leverage* | -0.112* | -0.001 | 0.003 |
| | (-1.652) | (-0.136) | (0.018) |
| *CEOTenure* | 0.001 | 0.001* | 0.001 |
| | (0.137) | (1.910) | (0.084) |
| N | 14,191 | 14,191 | 14,191 |
| Adjusted R-squared | 0.645 | 0.513 | 0.382 |
| Year FE | YES | YES | YES |
| Firm FE | YES | YES | YES |

Table 3.3 presents results from estimating equation (1). Variables are defined in Appendix B.1. We present coefficient estimate and t-statistics (in parentheses), followed by ***, **, and *, indicating significance at the less than 1%, 5%, and 10% levels, respectively.

Table 3.4 GC in Top Management and Earnings Narrative Disclosure – MD and Q&A

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| Variables | *Tone_MD* | *Tone_QA* | *Hedge_MD* | *Hedge_QA* |
| *GC* | 0.158** | 0.040 | 0.006 | 0.013** |
| | (2.397) | (0.933) | (1.216) | (2.441) |
| *Size* | 0.154* | -0.040 | 0.000 | 0.000 |
| | (1.647) | (-0.728) | (0.039) | (0.013) |
| *ROA* | 5.749*** | 0.743** | 0.142*** | 0.025 |
| | (10.996) | (2.009) | (3.633) | (0.597) |
| *MBE* | 0.459*** | 0.130*** | 0.006* | -0.004 |
| | (9.803) | (3.833) | (1.892) | (-1.197) |
| *Loss* | -0.610*** | -0.283*** | -0.006 | -0.007 |
| | (-6.484) | (-4.038) | (-0.890) | (-0.840) |
| *RET* | 0.792*** | 0.663*** | 0.021*** | 0.008 |
| | (13.124) | (14.992) | (4.692) | (1.583) |
| *Growth* | 1.067*** | 0.653*** | 0.001 | -0.004 |
| | (8.124) | (7.173) | (0.093) | (-0.448) |
| *Leverage* | -0.167* | 0.049 | -0.005 | -0.002 |
| | (-1.935) | (0.799) | (-0.809) | (-0.277) |
| *CEOTenure* | 0.003 | -0.005 | 0.002*** | -0.000 |
| | (0.668) | (-1.349) | (3.831) | (-0.252) |
| N | 14,191 | 14,191 | 14,191 | 14,191 |
| Adjusted R-squared | 0.654 | 0.460 | 0.472 | 0.414 |
| Year FE | YES | YES | YES | YES |
| Firm FE | YES | YES | YES | YES |

Table 3.4 presents results from estimating the equation (1) by separating between management discussion and Q&A session. Variables are defined in Appendix B.1. We present coefficient estimate and t-statistics (in parentheses), followed by ***, **, and *, indicating significance at the less than 1%, 5%, and 10% levels, respectively.

Table 3.5 Cross-Sectional Analysis of Performance-Based Compensation and Co-Opted GC

| | (1) | (2) |
|---|---|---|
| VARIABLES | Tone_MD | Tone_MD |
| *GC_HighComp* | 0.372*** | |
| | (4.755) | |
| *GC_LowComp* | -0.077 | |
| | (-1.010) | |
| *GC_Coopt* | | 0.179*** |
| | | (2.691) |
| *GC_NoCoopt* | | -0.252 |
| | | (-1.155) |
| *Size* | 0.180* | 0.195** |
| | (1.908) | (2.058) |
| *ROA* | 3.533*** | 3.501*** |
| | (6.613) | (6.549) |
| *MBE* | 0.465*** | 0.472*** |
| | (9.976) | (10.099) |
| *Loss* | -0.831*** | -0.840*** |
| | (-8.801) | (-8.847) |
| *RET* | 0.793*** | 0.793*** |
| | (13.061) | (13.020) |
| *Growth* | 1.138*** | 1.155*** |
| | (8.469) | (8.589) |
| *Leverage* | -0.188** | -0.190** |
| | (-2.153) | (-2.167) |
| *CEOTenure* | 0.003 | 0.003 |
| | (0.622) | (0.546) |
| p-value ($Chi^2$ test) | 0.000*** | 0.048** |
| Observations | 14,191 | 14,191 |
| Adjusted R-squared | 0.652 | 0.651 |
| Year FE | YES | YES |
| Firm FE | YES | YES |

Table 3.5 presents the results of the impact of GC performance based-compensation and GC-coopt on the tone of the management discussion section. Variables are defined in Appendix B.1. We present coefficient estimate and t-statistics (in parentheses), followed by ***, **, and *, indicating significance at the less than 1%, 5%, and 10% levels, respectively.

Table 3.6 Cross-Sectional Analysis of GC Tenure and Language in Q&A

| | (1) | (2) |
|---|---|---|
| VARIABLES | Hedge_QA | NoAnswer |
| *GC_HighTen* | 0.014*** | 0.336*** |
| | (3.237) | (3.171) |
| *GC_LowTen* | -0.013 | -0.370 |
| | (-0.886) | (-1.009) |
| *Size* | -0.000 | 0.250** |
| | (-0.002) | (2.414) |
| *ROA* | 0.024 | 2.363*** |
| | (0.696) | (2.828) |
| *MBE* | -0.004 | 0.027 |
| | (-1.229) | (0.314) |
| *Loss* | -0.007 | 0.582*** |
| | (-0.974) | (3.451) |
| *RET* | 0.008* | -0.354*** |
| | (1.660) | (-3.171) |
| *Growth* | -0.004 | -0.282 |
| | (-0.466) | (-1.285) |
| *Leverage* | -0.002 | -0.003 |
| | (-0.406) | (-0.026) |
| *CEOTenure* | -0.000 | 0.001 |
| | (-0.369) | (0.104) |
| p-value ($Chi^2$ test) | 0.077* | 0.048** |
| Observations | 14,191 | 14,191 |
| Adjusted R-squared | 0.415 | 0.382 |
| Year FE | YES | YES |
| Firm FE | YES | YES |

Table 3.6 presents the results of the impact of GC tenure on the proportion of hedge words and no answer response in Q&A session. Variables are defined in Appendix B.1. We present coefficient estimate and t-statistics (in parentheses), followed by ***, **, and *, indicating significance at the less than 1%, 5%, and 10% levels, respectively.

Table 3.7 GC and Ex-Ante Litigation Risk

| | (1) | (2) |
|---|---|---|
| VARIABLES | *Hedge_QA* | *NoAnswer* |
| *GC_HighRisk* | 0.018*** | 0.373*** |
| | (3.588) | (2.994) |
| *GC_LowRisk* | 0.007 | 0.231* |
| | (1.318) | (1.807) |
| *Size* | -0.000 | 0.250** |
| | (-0.029) | (2.413) |
| *ROA* | 0.025 | 2.393*** |
| | (0.737) | (2.865) |
| *MBE* | -0.004 | 0.026 |
| | (-1.261) | (0.298) |
| *Loss* | -0.007 | 0.583*** |
| | (-0.971) | (3.456) |
| *RET* | 0.008* | -0.351*** |
| | (1.705) | (-3.139) |
| *Growth* | -0.004 | -0.278 |
| | (-0.418) | (-1.266) |
| *Leverage* | -0.002 | -0.003 |
| | (-0.441) | (-0.019) |
| *CEOTenure* | -0.000 | 0.001 |
| | (-0.334) | (0.128) |
| p-value ($Chi^2$ test) | 0.048** | 0.3151 |
| Observations | 14,191 | 14,191 |
| Adjusted R-squared | 0.415 | 0.382 |
| Year FE | YES | YES |
| Firm FE | YES | YES |

Table 3.7 presents the results of the impact of ex-ante litigation risk on the proportion of hedge words, and no answer response in Q&A session. Variables are defined in Appendix B.1. We present coefficient estimate and t-statistics (in parentheses), followed by ***, **, and *, indicating significance at the less than 1%, 5%, and 10% levels, respectively.

Table 3.8 Robustness Test - Switching Sample

| | (1) | (2) | (3) |
|---|---|---|---|
| VARIABLES | *Tone_MD* | *Hedge_QA* | *NoAnswer* |
| *GC* | 0.126* | 0.012** | 0.297** |
| | (1.649) | (2.085) | (2.182) |
| *Size* | 0.124 | 0.004 | 0.234 |
| | (1.107) | (0.449) | (1.170) |
| *ROA* | 6.809*** | 0.038 | 1.233 |
| | (9.950) | (0.737) | (0.984) |
| *MBE* | 0.407*** | -0.005 | 0.028 |
| | (6.843) | (-1.214) | (0.247) |
| *Loss* | -0.706*** | -0.001 | 0.516** |
| | (-5.973) | (-0.144) | (2.057) |
| *RET* | 0.906*** | 0.011* | -0.252 |
| | (10.768) | (1.862) | (-1.576) |
| *Growth* | 0.155 | -0.006 | 0.078 |
| | (1.067) | (-0.611) | (0.383) |
| *Leverage* | 0.003 | -0.000 | -0.014 |
| | (0.651) | (-0.339) | (-1.560) |
| *CEOTenure* | 0.003 | -0.000 | -0.020 |
| | (0.446) | (-0.045) | (-1.337) |
| Observations | 8,404 | 8,404 | 8,404 |
| Adjusted R-squared | 0.656 | 0.401 | 0.388 |
| Year FE | YES | YES | YES |
| Firm FE | YES | YES | YES |

Table 3.8 presents results from estimating equation (1) by using switching sample. Variables are defined in Appendix B.1. We present coefficient estimate and t-statistics (in parentheses), followed by ***, **, and *, indicating significance at the less than 1%, 5%, and 10% levels, respectively.

Table 3.9 Robustness Test - Entropy Balancing

| | (1) | (2) | (3) |
|---|---|---|---|
| VARIABLES | *Tone_MD* | *Hedge_QA* | *NoAnswer* |
| *GC* | 0.161** | 0.013** | 0.298** |
| | (2.478) | (2.499) | (2.547) |
| *Size* | 0.160* | -0.001 | 0.265* |
| | (1.712) | (-0.217) | (1.672) |
| *ROA* | 5.564*** | 0.034 | 2.174** |
| | (10.614) | (0.828) | (2.149) |
| *MBE* | 0.454*** | -0.005 | 0.002 |
| | (9.688) | (-1.345) | (0.019) |
| *Loss* | -0.617*** | -0.005 | 0.564*** |
| | (-6.609) | (-0.576) | (2.887) |
| *RET* | 0.759*** | 0.008 | -0.329*** |
| | (12.060) | (1.551) | (-2.688) |
| *Growth* | 1.034*** | -0.005 | -0.297 |
| | (7.849) | (-0.498) | (-1.234) |
| *Leverage* | -0.179** | -0.002 | 0.040 |
| | (-2.172) | (-0.356) | (0.239) |
| *CEOTenure* | 0.002 | -0.000 | 0.003 |
| | (0.490) | (-0.028) | (0.276) |
| Observations | 14,191 | 14,191 | 14,191 |
| Adjusted R-squared | 0.656 | 0.412 | 0.383 |
| Year FE | YES | YES | YES |
| Firm FE | YES | YES | YES |

Table 3.9 presents results from estimating equation (1) by using entropy balancing. Variables are defined in Appendix B.1. We present coefficient estimate and t-statistics (in parentheses), followed by ***, **, and *, indicating significance at the less than 1%, 5%, and 10% levels, respectively.

Table 3.10 Robustness Test - CEO Legal Background

| | (1) | (2) | (3) |
|---|---|---|---|
| VARIABLES | *Tone_MD* | *Hedge_QA* | *NoAnswer* |
| *GC* | 0.155** | 0.013** | 0.306*** |
| | (2.353) | (2.464) | (2.640) |
| *Size* | 0.156* | -0.000 | 0.253 |
| | (1.685) | (-0.002) | (1.602) |
| *ROA* | 5.747*** | 0.025 | 2.388** |
| | (10.997) | (0.598) | (2.370) |
| *MBE* | 0.459*** | -0.004 | 0.027 |
| | (9.815) | (-1.202) | (0.317) |
| *Loss* | -0.607*** | -0.007 | 0.583*** |
| | (-6.458) | (-0.852) | (3.076) |
| *RET* | 0.791*** | 0.008 | -0.352*** |
| | (13.136) | (1.593) | (-2.987) |
| *Growth* | 1.068*** | -0.004 | -0.285 |
| | (8.126) | (-0.449) | (-1.211) |
| *Leverage* | -0.167* | -0.002 | 0.003 |
| | (-1.930) | (-0.280) | (0.017) |
| *CEOTenure* | 0.003 | -0.000 | 0.001 |
| | (0.669) | (-0.252) | (0.084) |
| *Lawyer* | -0.355 | 0.014 | 0.062 |
| | (-1.447) | (0.726) | (0.104) |
| Observations | 14,191 | 14,191 | 14,191 |
| Adjusted R-squared | 0.654 | 0.414 | 0.382 |
| Year FE | YES | YES | YES |
| Firm FE | YES | YES | YES |

Table 3.10 presents results from re-estimating main test by controlling for CEO with legal background. Variables are defined in Appendix B.1. We present coefficient estimate and t-statistics (in parentheses), followed by ***, **, and *, indicating significance at the less than 1%, 5%, and 10% levels, respectively.

Table 3.11 Robustness Test - CEO Fixed Effect

| | (1) | (2) | (3) |
|---|---|---|---|
| VARIABLES | *Tone_MD* | *Hedge_QA* | *NoAnswer* |
| *GC* | 0.117* | 0.008* | 0.320*** |
| | (1.673) | (1.688) | (2.774) |
| *Size* | 0.200** | -0.003 | 0.151 |
| | (2.069) | (-0.369) | (0.828) |
| *ROA* | 5.173*** | 0.037 | 3.182*** |
| | (9.206) | (0.851) | (3.174) |
| *MBE* | 0.418*** | -0.002 | 0.014 |
| | (9.011) | (-0.690) | (0.153) |
| *Loss* | -0.584*** | -0.003 | 0.506*** |
| | (-6.103) | (-0.335) | (2.674) |
| *RET* | 0.675*** | 0.007 | -0.308** |
| | (10.911) | (1.392) | (-2.434) |
| *Growth* | 1.150*** | -0.007 | -0.284 |
| | (8.638) | (-0.739) | (-1.159) |
| *Leverage* | -0.291*** | -0.012 | 0.070 |
| | (-3.100) | (-1.548) | (0.402) |
| *CEOTenure* | -0.002 | 0.001 | 0.010 |
| | (-0.259) | (1.185) | (0.865) |
| Observations | 13,216 | 13,216 | 13,216 |
| Adjusted R-squared | 0.702 | 0.509 | 0.453 |
| Year FE | YES | YES | YES |
| Firm FE | YES | YES | YES |
| CEO FE | YES | YES | YES |

Table 3.11 presents results from re-estimating main test by adding CEO fixed effect. Variables are defined in Appendix B.1. We present coefficient estimate and t-statistics (in parentheses), followed by ***, **, and *, indicating significance at the less than 1%, 5%, and 10% levels, respectively.

Table 3.12 Falsification Test - GC with Corporate Secretary Role

| | (1) | (2) | (3) |
|---|---|---|---|
| VARIABLES | *Tone_MD* | *Hedge_QA* | *NoAnswer* |
| *GC_Corsec* | 0.120 | 0.009 | 0.201 |
| | (1.728) | (1.260) | (1.511) |
| *Size* | 0.150 | -0.000 | 0.246 |
| | (1.335) | (-0.031) | (1.364) |
| *ROA* | 5.763*** | 0.026 | 2.413** |
| | (10.343) | (0.658) | (2.376) |
| *MBE* | 0.457*** | -0.004 | 0.025 |
| | (10.484) | (-0.963) | (0.308) |
| *Loss* | -0.613*** | -0.007 | 0.578*** |
| | (-5.839) | (-0.880) | (3.266) |
| *RET* | 0.792*** | 0.008 | -0.351*** |
| | (5.507) | (1.379) | (-2.947) |
| *Growth* | 1.065*** | -0.005 | -0.290 |
| | (4.275) | (-0.368) | (-0.920) |
| *Leverage* | -0.169* | -0.002 | -0.001 |
| | (-1.801) | (-0.282) | (-0.007) |
| *CEOTenure* | 0.003 | -0.000 | 0.001 |
| | (0.647) | (-0.285) | (0.059) |
| Observations | 14,191 | 14,191 | 14,191 |
| Adjusted R-squared | 0.653 | 0.414 | 0.381 |
| Year FE | YES | YES | YES |
| Firm FE | YES | YES | YES |

Table 3.12 presents results from re-estimating main test by replacing general counsel variable with the general counsel that also serves as corporate secretary. Variables are defined in Appendix B.1. We present coefficient estimate and t-statistics (in parentheses), followed by ***, **, and *, indicating significance at the less than 1%, 5%, and 10% levels, respectively.

# Appendix B

## B.1 Supplementary Material for Chapter 3

## Appendix 3.1 Variable Definition

| Variable | Definition | Source |
|---|---|---|
| *Tone* | Net management tone in earnings conference call, calculated as the number of positive bigrams minus the number of negative bigrams divided by the number of total bigrams based on García et al. (2023) financial dictionary | Capital IQ |
| *Tone_MD* | Net management tone in earnings conference call within the management discussion section, calculated as the number of positive bigrams minus the number of negative bigrams divided by the number of total bigrams based on García et al. (2023) financial dictionary | Capital IQ |
| *Tone_QA* | Net management tone in earnings conference call within the questions and answers section, calculated as the number of positive bigrams minus the number of negative bigrams divided by the number of total bigrams based on García et al. (2023) financial dictionary | Capital IQ |
| *Hedge* | Number of weak modal verbs minus strong modal verbs divided by total words | Capital IQ |
| *Hedge_MD* | Number of weak modal verbs minus strong modal verbs divided by total words within the management discussion section | Capital IQ |
| *Hedge_QA* | Number of weak modal verbs minus strong modal verbs divided by total words within the questions and answers section | Capital IQ |
| *NoAnswer* | Proportion of responses by management that is categorized as "non response" based on Gow et al. (2021) | Capital IQ |
| *GC* | Dummy variable with the value of 1 if GC is among the top-five highest paid executives | Execucomp |
| *SIZE* | Natural logarithm of firm's market capitalization | Compustat |
| *ROA* | Income before extraordinary items divided by total assets | Compustat |
| *Loss* | Dummy Variable with the value of 1 income before extraordinary items is less than 0 | Compustat |
| *MBE* | Dummy variable with the value of 1 if actual EPS is higher than forecasted EPS | IBES |
| *RET* | Buy and hold return over a year | Compustat |
| *Leverage* | Total long term debt divided by market value of equity | Compustat |
| *CEOTenure* | Tenure of the CEO | ISS |
| *Lawyer* | Dummy variable with the value of 1 if CEO has a legal education background | Boardex |
| *HighComp* | Dummy variable with the value of 1 if the proportion of GC performance-based | Execucomp |

| | | |
|---|---|---|
| | compensation ((noneq_incent+stock_awards+option_awards )/total compensation) is higher than the median sample | |
| *LowComp* | Dummy variable with the value of 1 if proportion of the GC performance-based compensation ((noneq_incent+stock_awards+option_award)/ total compensation) is lower than the median sample | Execucomp |
| *GC_Coopt* | Dummy variable with the value of 1 if GC is appointed after the CEO assumes office | Execucomp |
| *GC_NoCoopt* | Dummy variable with the value of 1 if GC is appointed before the CEO assumes office | Execucomp |
| *GC_HighTen* | Dummy variable with the value of 1 if GC tenure is higher than the median sample | Execucomp |
| *GC_LowTen* | Dummy variable with the value of 1 if GC tenure is lower than the median sample | Execucomp |
| *GC_HighRisk* | Dummy variable with the value of 1 if firms with GC in top management have higher than median ex-ante litigation risk as measured by Kim and Skinner (2012) | Compustat |
| *GC_LowRisk* | Dummy variable with the value of 1 if firms with GC in top management have lower than median ex-ante litigation risk as measured by Kim and Skinner (2012) | Compustat |
| *GC_Corsec* | Dummy variable with the value of 1 when GCs serve as corporate secretaries but are not among the top five highest-paid executives | Execucomp |

# Chapter 4

# Words and Numbers: Acquirer–Target Deal Narrative Alignment and Goodwill Impairment

## 4.1 Introduction

Mergers and acquisitions (M&A) frequently fail to deliver their anticipated benefits, with many transactions ultimately destroying shareholder value (Moeller et al., 2005). When M&A deals fail to create value, it is difficult to determine whether poor outcomes stem from misaligned expectations between the parties at deal inception or from subsequent execution failures despite initially aligned expectations. Alignment in expectations about deal rationale and anticipated value creation may be crucial for deal success because it facilitates coordination during integration, ensures more realistic valuation assumptions, and signals effective communication between the parties. Prior research highlights several drivers of deal success, including corporate governance quality (Masulis et al., 2007), managerial decision-making (Malmendier and Tate, 2008), and deal complexity (Alexandridis et al., 2013). However, these studies provide limited evidence on expectation alignment at the time of announcement, making it difficult to disentangle the role of initial misalignment from post-deal execution failures in driving outcomes.

This paper addresses this challenge by exploiting a distinctive feature of M&A announcements: press releases that include separate statements from both acquirer and target executives. These statements typically highlight the strategic rationale, expected synergies, and future vision from each party's perspective, providing a real-time window into management expectations before integration begins. Unlike post-deal outcomes that reflect both initial expectations and execution quality, these public statements reflect management's views at the moment of announcement, when key valuation assumptions are formed. The degree of alignment between these narratives therefore offers a direct measure of expectation consistency between the transacting parties.

Goodwill impairment provides an ideal setting to test whether such expectation alignment matters for subsequent deal outcomes. As the excess of purchase price over the fair value of identifiable net assets acquired, goodwill capitalizes expectations of synergies and future performance at the time of the deal. When those expectations are not realized, goodwill is written down. This paper examines whether narrative alignment in M&A press releases between acquirer and target executives predicts the likelihood of goodwill impairment after deal completion.[13]

[13]I acknowledge that goodwill impairment can reflect two conceptually distinct phenomena: poor ex-ante valuation quality (where acquirers overpaid or overestimated synergies) or good ex-post accounting quality (where firms recognize economic losses in a timely manner). Since narrative alignment is measured at deal announcement, lower subsequent impairment rates suggest that aligned narratives reflect more realistic initial valuation assumptions rather than superior deal execution or delayed loss recognition.

When acquirers and target executives emphasize similar strategic themes or synergies in their M&A press release, this alignment may reflect shared expectations underlying the valuation process. Such semantic similarity goes beyond tone, capturing substantive agreement in how each party frames the deal's rationale and expected benefits. Because these assumptions shape key accounting judgments such as purchase price allocation and goodwill recognition, alignment at the announcement stage can reduce the risk of overestimating the deal's benefits or underestimating integration challenges. While transactional due diligence before closing can reconcile some differences (Wangerin, 2019), high levels of narrative alignment provide an early signal of consistent expectations, which should translate into lower likelihood of subsequent goodwill impairment. Thus, semantic alignment between acquirer and target narratives may serve as an early predictor of goodwill impairment.

However, narrative alignment in press releases may not necessarily reduce the likelihood of subsequent goodwill impairment. First, press releases are often shaped by investor relations or public relations teams and may be driven more by messaging strategy or audience targeting than by fundamental consistency in valuation assumptions. Post-announcement negotiations and transactional due diligence could still alter the assumptions about synergies and future performance, meaning that alignment in the press release may not fully reflect the accounting judgments used for purchase price allocation and goodwill measurement. While alignment generally signals shared expectations, divergence may also have benefits. In some cases, divergent narratives can reflect complementary perspectives on valuation assumptions, where each side highlights different but mutually reinforcing aspects of the deal.[14] Such complementarity can strengthen integration planning and reduce the risk of future impairments. Thus, whether narrative alignment between acquirers and target firms predicts subsequent goodwill impairment remains an empirical question.

To examine this question, I collect a dataset of U.S. public-company M&A between June 30, 2001, and December 31, 2022. I start the sample period in 2001 because that is when SFAS 142 took effect, ending goodwill amortization and introducing annual impairment testing, which provides a consistent accounting regime for measuring post-deal write-downs across the sample. I measure narrative alignment using textual analysis of each manager's statement in the joint press release, focusing on semantic similarity derived from FinBERT embeddings. Semantic similarity captures the extent to which the acquirer and target describe

[14] For example, an acquirer may emphasize efficiency gains from integrating overlapping operations, while the target highlights opportunities to leverage its existing customer relationships to expand revenues. Although distinct, these perspectives reinforce one another in shaping the economic rationale of the deal.

the deal using consistent wording, themes, and points of emphasis. A higher similarity suggests that both sides frame the transaction in comparable ways, which may indicate agreement on valuation assumptions and integration expectations. This FinBERT-based similarity proxy for narrative alignment reflects whether the two parties present a coherent and mutually reinforcing view of the transaction. Greater alignment may signal shared expectations, while lower alignment may reveal underlying differences that increase the risk of subsequent goodwill impairment.

I find that greater semantic alignment between acquirer and target executive statements in M&A press releases is associated with a significantly lower likelihood of goodwill impairment within the first year after deal completion. A one standard deviation increase in narrative similarity corresponds to a 3.6% reduction in impairment probability, which is economically meaningful relative to the 9.7% unconditional impairment rate in my sample. Cross-sectional analyses reveal that this relationship is stronger when goodwill acquired represents a larger share of the purchase price, consistent with narrative alignment being particularly valuable when valuations rely heavily on subjective expectations about synergies and future performance. Additionally, the predictive power of alignment is more pronounced in cross-industry acquisitions, where high similarity is less likely to reflect common industry terminology and more likely to capture genuine agreement on deal-specific assumptions.

Furthermore, I document that narrative alignment and analyst coverage act as substitutes in predicting goodwill impairment outcomes. While narrative alignment significantly reduces impairment likelihood for acquirers with low analyst coverage, this effect is entirely eliminated for acquirers with high analyst coverage. This finding suggests that when sophisticated external monitoring is already present through extensive analyst coverage, the incremental informational value of narrative alignment becomes negligible. Conversely, when external oversight is limited, narrative alignment serves as a valuable coordination mechanism that helps predict deal success. My results are robust to alternative similarity measures, entropy balancing procedures, and various model specifications, including OLS estimation and continuous impairment magnitude measures rather than binary indicators.

This paper makes several contributions. First, it addresses a key literature gap in M&A research by providing a way to measure expectation alignment at deal announcement. Prior studies have identified various factors associated with M&A value destruction, including managerial overconfidence (Malmendier and Tate, 2008), overpayment leading to subsequent write-downs (Gu and Lev, 2011), and deal complexity (Alexandridis et al., 2013), but these

studies are unable to disentangle whether poor outcomes reflect misaligned initial expectations or execution failures during integration. By analyzing semantic alignment between acquirer and target executive statements in deal press releases, this study introduces a direct, real-time proxy for expectation consistency before integration outcomes can intervene. This approach provides new evidence on the role of initial expectation alignment in shaping deal success.

Second, it contributes to the growing literature on acquirer–target alignment by introducing deal narratives as a distinct and observable dimension of alignment. Prior studies have examined qualitative aspects such as cultural, social, or industry similarity (e.g., Hoberg and Phillips, 2010; Ishii and Xuan, 2014; Bereskin et al., 2018), which capture broader organizational or environmental commonalities. In contrast, this paper focuses on alignment in transaction-specific communication by analyzing the extent to which acquirer and target executives articulate a consistent public rationale for the deal. Public statements in joint press releases consolidate each party's views on strategic fit, expected synergies, and integration priorities. Alignment in these narratives signals convergence in underlying assumptions and post-merger plans that are specific to the transaction rather than general firm characteristics. By linking narrative alignment to subsequent goodwill impairment, this study shows that consistency in deal framing can be an early indicator of whether initial valuation assumptions are realized after deal completion.

Finally, this paper contributes to the literature on goodwill impairment by introducing an explanatory factor based on deal communication. Prior research has established that goodwill impairment is influenced by the firm's post-acquisition performance (Riedl, 2004), financial reporting quality and managerial discretion (Chen et al., 2018), managerial incentives and opportunistic reporting behavior (Ramanna and Watts, 2012), and the degree of acquisition overpayment (Gu and Lev, 2011; Li et al., 2011). While these studies focus on economic outcomes, accounting discretion, and deal pricing, limited attention has been paid to the role of qualitative disclosures made at the time of the transaction. I extend this literature by identifying deal narrative alignment, measured as the semantic similarity between acquirer and target executives' statements in deal press releases, as a new factor associated with the likelihood of subsequent goodwill impairment. This approach complements prior emphasis on quantitative deal metrics by highlighting the qualitative consistency of expectations and strategic framing, offering new insights into how aligned deal narratives may signal smoother post-acquisition integration and reduce the risk of later write-downs.

## 4.2 Literature Review and Hypothesis Development

### 4.2.1 Narrative Disclosure at the M&A Announcement

Information disclosure during M&A announcements plays a critical role in shaping investor perceptions. M&A announcements typically involve press release where managers disclose the strategic rationale, expected synergies, and deal term. The press release serves as a key disclosure event within the M&A process, marking the first formal communication of the transaction to market participants. Rather than providing detailed quantitative forecasts or financial projections, M&A press releases rely heavily on narrative explanations and managerial language to frame the deal's value proposition and strategic fit.

Prior studies show that narrative content of the M&A press releases could influence investor reaction and signal the deal quality. For instance, Filip et al. (2022) find that greater emphasis on qualitative value drivers such as growth opportunities, expected synergies, human capital, brand value, customer relationships, and technology in acquirers' press releases is associated with lower acquirer announcement returns. Their results suggest that investors may view extensive narrative focus on these intangible factors with skepticism and may interpret them as substitutes for more concrete deal justifications. Moreover, Cao et al. (2023) find that differences in sentiment between acquirer and target executives within a press release predicts both the likelihood of deal completion and the time required to close the transaction. Their findings suggest that narrative inconsistency between the two parties reflects underlying negotiation frictions or unresolved differences in expectations.

These studies show that narrative framing in M&A announcements is not merely descriptive but can provide informative signals about deal quality, managerial alignment, and potential post-deal challenges. This makes the narrative content of the press release a relevant and observable lens for examining alignment between acquirers and targets.

### 4.2.2 Acquirer-Target Alignment and M&A Outcome

Recent literature highlights the importance of alignment between acquirers and targets in shaping M&A outcomes across several dimensions. Bereskin et al. (2018) find that cultural similarity across merging firms improves operating performance and deal completion, as shared values and managerial practices reduce integration frictions. Building on this, Hertel et al. (2024) show that cultural divergence, measured using employee-generated narratives, exhibits a U-shaped relationship with announcement returns. Their findings suggest that both high and low levels of cultural difference can enhance M&A value, depending on how cultural gaps are managed and communicated. Cultural similarity may support smoother integration,

while pronounced differences may spur innovation or knowledge complementarity when effectively addressed.

However, social alignment between executives may have unintended consequences. Ishii and Xuan (2014) find that pre-existing social ties between acquirer and target executives are associated with significantly lower acquirer announcement returns. Their results suggest that social connections may lead to overly accommodating deal terms or reduce the acquirer's negotiating discipline, ultimately harming short-run merger performance. While social ties could facilitate information sharing, the evidence points to a net negative effect on deal value from the acquirer's perspective.

Meanwhile, Cao et al. (2023) show that divergence in sentiment between acquirer and target press releases lead to lower likelihood of deal completion and longer time to deal completion, suggesting that public narrative gaps may proxy for misalignment between acquirers and target firms. Finally, industry alignment provides an additional channel for synergy realization. Hoberg and Phillips (2010) find that product market similarity between acquirers and targets enhances post-merger outcomes by reducing integration barriers and enabling more effective strategic consolidation.

Overall, the literature suggests that alignment, whether reflected in culture, executive networks, public narratives, or industry positioning, can influence both the negotiation process and the success of post-deal integration. Building on this insight, the present study focuses on narrative alignment as reflected in the degree of similarity between acquirer and target executives' statements at the time of the deal announcement and examines whether this alignment is associated with the likelihood of subsequent goodwill impairment.

### 4.2.3 Hypothesis Development

In M&A transactions, the press release serves as a key vehicle for communicating the deal's rationale to external stakeholders. Although these press releases are often jointly issued, they typically include separate quotes from the CEOs or top executives of both the acquirer and the target. These executive statements provide important insights into how each side frames the strategic rationale, expected synergies, and value creation potential of the transaction (Filip et al., 2022). Alignment in narrative framing between acquirer and target executives may signal agreement over deal valuation assumptions and integration plans, both of which are critical for a smooth post-merger execution. Meanwhile, divergence may reveal underlying disagreements, valuation uncertainty, or differing views on post-deal risks and benefits.

This alignment is particularly important in the context of M&A accounting judgments, where significant discretion exists in valuing the acquired assets, liabilities, and goodwill under ASC 805 (Zhang and Zhang, 2017). These valuations depend heavily on forward-looking assumptions about synergies, growth prospects, and future cash flows. When acquirer and target executives emphasize similar themes in their public statements, this similarity may reflect shared expectations about these key drivers. Such alignment reduces the risk that the acquirer overestimates the economic benefits of the deal and pays an inflated purchase price. By contrast, when the assumptions underlying the deal are not aligned, the risk of subsequent goodwill impairment is higher, as the anticipated benefits may fail to materialize. Thus, narrative alignment at the announcement stage may serve as an early, observable signal of lower likelihood of subsequent goodwill impairment.

However, it is also plausible that narrative alignment in executive statements does not necessarily reduce the likelihood of subsequent goodwill impairment. First, alignment may simply reflect similarities in communication styles, investor relations strategies, or audience targeting, rather than genuine agreement on valuation assumptions. In addition, the period between the announcement and deal closing typically involves in-depth due diligence and negotiation processes, where earlier differences can be reconciled (Wangerin, 2019). Furthermore, divergence may sometimes capture complementary perspectives or capabilities across the two firms. When effectively integrated, such diversity in managerial viewpoints could enhance post-deal decision-making and reporting outcomes. For example, acquirers and targets with different but complementary strengths may naturally emphasize different aspects of the transaction in their public narratives without this leading to poor accounting outcomes.

Given these competing arguments, whether narrative alignment between acquirer and target executive statements predicts subsequent goodwill impairment remains an empirical question. Therefore, I state the hypothesis in the null form:

*H1: Narrative alignment between acquirer and target executive statements in M&A press releases is not associated with the likelihood of subsequent goodwill impairment.*

## 4.3 Research Design

### 4.3.1 Sample Selection

I construct a sample of completed U.S. domestic mergers and acquisitions (M&A) from 2001 to 2022 using the Refinitiv Eikon Deal Screener. The sample period begins with acquisitions announced after June 30, 2001, because, under SFAS 142, goodwill acquired in

business combinations after this date is no longer amortized. I include all domestic transactions classified as *mergers*, *acquisitions*, or *acquisitions of majority interest*. Both acquirers and targets are required to be publicly listed. The acquirer must hold less than 50 percent of the target's shares prior to the transaction and more than 50 percent upon completion. To focus on material transactions, I impose a minimum transaction value threshold of $1 million. I manually match each M&A event to its official press release by identifying the acquirer and target Central Index Key (CIK) codes and linking them to the relevant announcement. Each deal must include executive statements from both the acquirer and target within the press release. I further require sufficient financial data for both firms from the Compustat database. I exclude firms in the financial sector from the sample. All continuous variables are winsorized at the 1st and 99th percentiles to mitigate the influence of outliers. Applying these criteria results in a final sample of 795 firm-year observations for the main analysis. Table 4.1 provides details of the sample selection process.

### 4.3.2 Narrative Alignment Proxy – FinBERT Similarity

I employ FinBERT, developed by Huang et al. (2022), a transformer-based language model pretrained on large financial text corpora, to quantify the semantic similarity between acquirer and target executives' statements in M&A press releases. FinBERT tokenizes each statement and maps the tokens into high-dimensional contextual embeddings, where the meaning of each word is shaped by its surrounding context. To represent the overall meaning of a statement, I apply mean pooling over the token embeddings, weighted by the attention mask, resulting in a single fixed-length vector for each statement. Semantic similarity is then computed as the cosine similarity between the acquirer's and the target's statement vectors, capturing the degree to which the two statements convey similar meanings, even when the wording differs.

FinBERT similarity is an appropriate proxy for narrative alignment because it measures consistency in the underlying meaning of the statements rather than superficial word overlap. In the M&A setting, higher similarity indicates that both parties convey semantically consistent messages, which often reflects a shared understanding of deal rationale, valuation assumptions, and integration plans. Lower similarity reflects divergent framing or emphasis, potentially signaling differences in expectations or priorities that may signal integration challenges and result in subsequent accounting adjustments. Because FinBERT is trained on domain-specific financial language, it captures subtle contextual meanings in business discourse, making it a

theoretically grounded and contextually rich measure of narrative alignment or misalignment between deal parties.

To validate that my FinBERT similarity measure captures meaningful differences in narrative alignment, Appendix 4.2 presents representative examples from my sample showing high versus low similarity scores alongside the actual executive statements. These examples demonstrate that high similarity scores reflect substantive agreement in strategic themes, expected synergies, and deal rationale, while low similarity scores capture divergent messaging where parties emphasize different aspects of the transaction or frame the deal's value proposition inconsistently. The validation confirms that my measure captures semantic alignment rather than merely superficial textual similarity.

### 4.3.3 Multivariate Tests – Narrative Alignment and Goodwill Impairment

To empirically examine the relationship between narrative alignment, proxied by FinBERT similarity and the subsequent goodwill impairment, I develop the following probit regression model:

$$\Pr(GW = 1) = Probit(\alpha_0 + FinBERTSim_{it} + \sum_{k=2}^{15} \alpha_k X_{k,it} + \gamma_i + \delta_t + \epsilon_{it})$$

Where *GW* is the indicator variable with the value of 1 if the combined firms do goodwill impairment within 365 days after the deal completed. Goodwill recognized at acquisition reflects the excess of the purchase price over the fair value of net assets acquired, which is determined largely by management's forward-looking estimates of synergies, growth, and other benefits. If these assumptions are overly optimistic or based on flawed integration plans, they are unlikely to be realized in practice. When actual post-deal performance falls short of these expectations, accounting standards require firms to write down goodwill. Thus, a goodwill impairment shortly after the acquisition indicates that initial valuation assumptions were not realized.

The variable of interest is $FinBERTSim_{it}$, which captures the semantic similarity between the acquirer's and target's executive statements in the deal announcement press release, as measured using the FinBERT language model. FinBERT is a domain-specific adaptation of BERT trained on financial texts, allowing it to identify similarities and differences in meaning even when different words or phrasing are used. This makes it well

suited for detecting semantic divergence in M&A narratives, where executives may frame the deal differently while discussing similar topics.

Following prior literature on goodwill impairment and M&A-related outcomes, I include a vector of control variables to account for firm and deal characteristics. First, I control for changes in firm performance, such as changes in return on assets (*ΔROA*), operating cash flow (*ΔOCF*), and changes in sales (*ΔSales*), consistent with Francis et al. (1996), Riedl (2004), and Hayn and Hughes (2006). I also control for growth opportunities using the acquiring firm's market-to-book ratio (*MTB*), as Beatty and Weber (2006) find that the likelihood and magnitude of goodwill impairments decrease with higher growth opportunities. I control for leverage (*Lev*) to account for differences in capital structure that may influence impairment recognition. Then, I control for big bath incentives (*Bath*) that would influence the timing of goodwill impairment.

To capture acquirer execution capability, I control for historical goodwill impairment experience (*GW_Impair_3yr*), a dummy variable equal to one if the acquirer recorded any goodwill impairment in the three years prior to the current deal. This variable captures the acquirer's track record in managing M&A expectations and integration processes. Then, I control for recent M&A activity (*MA_Activity_3yr*), a dummy variable equal to one if the acquirer completed any acquisition in the three years prior to the current deal. This variable accounts for the acquirer's recent M&A experience and learning effects that may influence post-deal outcomes.

I also include controls for deal characteristics, such as the relative size of the deal to the acquiring firm's assets (*DealSize*), whether acquiring firms fully paid in stock or cash (*Stock* and *Cash*), the number of bidders for the M&A transaction (*Bidders*), and whether the deal is classified as a merger or not (*Merger*). Finally, I also control for differences in the length of the acquirer and target statements (*LengthDif*) to ensure that the semantic divergence measure is not mechanically driven by disparities in disclosure volume.

I include Year Fixed Effects ($\delta t$) to absorb any year-specific shocks affecting all M&A transactions, such as changes in macroeconomic conditions, accounting standards, or capital market sentiment. In addition, I include Industry Fixed Effects ($\gamma j$), based on the acquirer's two-digit SIC industry, to control for time-invariant industry characteristics that may influence both deal structuring and goodwill impairment behavior. These characteristics include industry-specific valuation practices, competitive dynamics, and norms in financial reporting.

I estimate the model using a probit specification and calculate standard errors clustered at the firm level.

## 4.4 Results

### 4.4.1 Descriptive Statistics

Table 4.2 provides descriptive statistics for all variables used in the main regression analysis. On average, I find that 9.7% of combined firms have goodwill impairment within a year after the deal is completed. This magnitude is comparable to prior evidence on M&A-related goodwill impairments (e.g., Wangerin, 2019; Johnson et al., 2022), suggesting that the sample is representative of typical impairment incidence in the post-acquisition period. Moreover, I find that the mean of *FinBERTSim* is 0.897, suggesting generally high semantic alignment between acquirer and target executives' deal narratives. However, there is substantial variation across transactions, with values ranging from as low as 0.767 to a very high similarity score of 0.983. This range suggests that while many deals feature closely aligned narratives, others reveal marked differences in the way each side frames the transaction.[15]

### 4.4.2 Main Results – Narrative Alignment and Goodwill Impairment

Table 4.3 presents the results from estimating equation (1), which tests whether the semantic similarity between acquirer and target executive statements in the deal press release is associated with subsequent goodwill impairment. The coefficient of *FinBERTSim* in Table 4.3 column (3) is -5.825, which is statistically significant at the 5% level.[16] This result implies that a higher level of narrative alignment translates to lower likelihood of goodwill impairment within the first year after deal completion.

The effects are economically significant. In the probit with year and industry fixed effects, the average marginal effect implies that a one standard deviation increase in *FinBERTSim* (0.039) is associated with a 3.6% lower likelihood of recognizing goodwill impairment within the first year after deal completion. This is economically meaningful relative to the 9.7%

[15] While high scores may partly reflect overlap in common deal-related terminology, this overlap is itself informative in the M&A context, as it signals consistency in how both sides describe the deal's rationale, synergies, and value proposition. Such alignment in public framing may reflect agreement on key assumptions that underpin valuation and integration plans, making it a relevant indicator for assessing the risk of subsequent goodwill impairment.

[16] I note that the sample sizes in Table 4.3 column (3) do not reconcile to the full sample. The sample attrition is due to the exclusion of industries where all firms in the estimation sample either recognize or do not recognize goodwill impairment, causing the industry fixed-effect dummy to perfectly predict the outcome. I re-estimate the baseline specification using OLS in the section 4.4.7 and the inferences remain unchanged.

unconditional goodwill impairment rate. This finding suggests that greater narrative alignment between acquirer and target executives during deal announcements may indicate stronger agreement on valuation assumptions and integration expectations, thereby reducing the risk of subsequent impairment. Higher semantic similarity in deal press releases may also signal more effective pre-merger due diligence and clearer post-merger strategic planning.

### 4.4.3 Goodwill Acquired Intensity and Narrative Alignment

To further examine the mechanism, I test whether the effect of narrative similarity is more pronounced in deals where goodwill acquired represents a larger share of the purchase price. A higher goodwill proportion indicates that a greater portion of the consideration reflects intangible factors such as growth opportunities, synergies, and management expectations rather than identifiable net assets. These valuations are inherently more subjective and thus more sensitive to differences in acquirer–target expectations. If narrative similarity captures alignment in these expectations, its effect on reducing the likelihood of subsequent goodwill impairment should be stronger in high-goodwill deals.

To analyze the influence of goodwill acquired proportion on the relationship between narrative similarity and likelihood of future goodwill impairment, I interact *FinBERTSim* variable with *PropoGoodwill* variable, in which the latter variable is the proportion of goodwill acquired relative to the deal price. The results in Table 4.4 column (1) show a statistically significant positive association between *PropoGoodwill* and *GW*. Consistent with Wangerin (2019), I find that *PropoGoodwill* is positively associated with the likelihood of future goodwill impairment. Meanwhile, I find that the interaction variable of *FinbertSim x PropoGoodwill* is negative and statistically significant at 5% level. This result suggests that the mitigating effect of narrative similarity on impairment risk is more pronounced in deals where goodwill represents a larger share of the purchase price, consistent with narrative alignment being particularly important when valuations rely heavily on intangible expectations.

### 4.4.4 Analyst Coverage and Narrative Alignment

To examine whether analyst coverage moderates the relationship between narrative similarity and the likelihood of future goodwill impairment, I interact the *FinBERTSim* variable with an indicator for high analyst coverage (*High_Coverage*), defined as one if the acquirer's number of analyst following is above the sample median and zero otherwise. Acquirers with higher analyst coverage face greater external scrutiny and monitoring, which may systematically influence how narrative alignment affects post-acquisition outcomes. On one

hand, extensive analyst coverage provides external discipline over management expectations and deal evaluation, potentially reducing the incremental value of narrative alignment in signaling deal quality and realistic expectations. On the other hand, analyst monitoring may complement narrative alignment by ensuring that aligned expectations between parties are realistic and well-founded, making similarity more effective in signaling successful deal outcomes.

The results in Table 4.4 column (2) show a negative and statistically significant coefficient on *FinBERTSim* indicating that higher narrative similarity is strongly associated with a lower likelihood of future goodwill impairment for low-coverage acquirers. The coefficient on *High_Coverage* is negative and statistically significant, suggesting that high analyst coverage deals have a lower baseline probability of impairment compared to low-coverage deals. Meanwhile, I find that the interaction term of *FinBERTSim* × *High_Coverage* is positive and statistically significant at 5% level, indicating that the signaling value of narrative similarity is substantially weaker for high-coverage acquirers. Moreover, for high-coverage acquirers, the total effect is calculated as the sum of the main effect and the interaction term: -9.576 + 9.937 =0.361. This means that while narrative alignment has a substantial negative association with impairment probability for low-coverage acquirers, this beneficial effect is not only eliminated but slightly reversed for high-coverage acquirers, where the net effect becomes slightly positive, indicating that narrative alignment provides no meaningful predictive power when extensive analyst coverage is present.

These results are consistent with analyst coverage and narrative alignment acting as substitutes when extensive external monitoring is present through high analyst coverage, the incremental signaling value of narrative alignment in indicating realistic expectations and coordination becomes negligible. Overall, these findings indicate that narrative similarity provides greater predictive power when external information intermediaries provide more limited oversight, consistent with narrative alignment serving as an important coordination mechanism that becomes less relevant when more intensive external monitoring is already present.

### 4.4.5 Industry Relatedness and Narrative Alignment

To examine whether industry relatedness moderates the relationship between narrative similarity and the likelihood of future goodwill impairment, I interact the *FinBERTSim* variable with an indicator for same-industry deals (*Industry*), defined as one if the acquirer and target share the same two-digit SIC code and zero otherwise. Same-industry acquisitions may differ

systematically from cross-industry deals in ways that influence how narrative alignment affects post-acquisition outcomes. On one hand, shared industry context could mean that part of the measured similarity reflects common terminology, reducing the incremental value of alignment in mitigating impairment risk. On the other hand, operating in the same industry may enhance the benefits of alignment by facilitating integration and realizing synergies, making similarity more effective in preventing impairment.

The results in Table 4.4 column (3) show a negative and statistically significant coefficient on *FinBERTSim*, indicating that higher narrative similarity is strongly associated with a lower likelihood of future goodwill impairment in cross-industry deals. The coefficient on *Industry* is negative and marginally significant at the 10% level, suggesting that same-industry deals have a lower baseline probability of impairment compared to cross-industry deals. Meanwhile, I find that the interaction term of *FinBERTSim* × *Industry* is positive and marginally significant at the 10% level, indicating that the mitigating effect of narrative similarity is weaker for same-industry deals. Specifically, while narrative similarity reduces impairment probability substantially for cross-industry deals (coefficient = -9.657), this effect is attenuated for same-industry deals (net effect = -3.103), consistent with the notion that part of the measured similarity in same-industry transactions reflects common industry language rather than alignment in deal-specific expectations. Overall, these results indicate that the predictive value of narrative similarity is more pronounced in cross-industry acquisitions, where the absence of shared industry jargon means that high similarity is more likely to reflect genuine alignment in deal-specific expectations.

### 4.4.6 Robustness Test – Entropy Balancing

To assess the robustness of the baseline results to differences in observable characteristics, I construct a binary treatment variable (*HighFinBERTSim*) that equals one if a deal's *FinBERTSim* is above the sample median and zero otherwise. I then use entropy balancing to reweight the control group (*HighFinBERTSim* = 0) so that its covariate distribution matches that of the treatment group (*HighFinBERTSim* = 1) on the selected firm and deal characteristics. This reweighting procedure, following Hainmueller (2012), improves the comparability of the two groups and allows for a cleaner estimation of the relationship between narrative similarity and the likelihood of goodwill impairment. Table 4.5 presents the results from estimating the main test using entropy balancing, and my inferences remain unchanged.

### 4.4.7 Robustness Test – Goodwill Impairment Magnitude and OLS Specification

As an additional robustness test, I replace the goodwill impairment indicator with the proportion of goodwill impairment to total assets (*Mag_Goodw*). This continuous measure captures the economic magnitude of the impairment relative to firm size, providing a more nuanced assessment of post-acquisition asset write-downs. Whereas the indicator variable reflects only the occurrence of an impairment, the proportion measure accounts for variation in its size, thereby offering an additional perspective on the relationship between narrative similarity and impairment outcomes. In addition, I re-estimate the baseline model using an OLS specification with the impairment indicator as the dependent variable.

The results in Table 4.6 column (1) show that the coefficient on *FinBERTSim* is negative and marginally significant at the 10 percent level, indicating that greater narrative alignment is associated with smaller impairment magnitudes. In addition, I re-estimate the baseline model using an OLS specification with the impairment indicator as the dependent variable. The results in Table 4.6 column (2) show that the coefficient on *FinBERTSim* remains negative and statistically significant at the 5 percent level, suggesting that the main association is robust to changes in estimation method. Taken together, these results reinforce the interpretation that narrative alignment reduces both the likelihood and the magnitude of post-acquisition goodwill write-downs.

### 4.4.8 Robustness Test – Alternative Similarity Measure

To evaluate whether the predictive power of narrative similarity depends on the specific embedding model used, I replace the FinBERT-based similarity measure with MiniLM similarity. MiniLM is a compact transformer-based sentence embedding model trained on general-domain text and widely used for semantic similarity tasks in natural language processing, but unlike FinBERT, it is not tailored to financial language. The results in Table 4.7 column (1) indicate that substituting *FinBERTSim* with *MiniLMSim* yields a coefficient that is small and statistically insignificant. This pattern suggests that the FinBERT model, which is trained on financial text, captures domain-specific semantic nuances that general-purpose embeddings may overlook.

This distinction is important when analyzing executive statements in M&A press releases because these statements often contain technical financial terminology and integration plans that require finance-specific understanding. FinBERT's training on financial corpora enables it to detect subtle alignment in how acquirers and target executives communicate cost savings, revenue synergies, and integration strategies, which is likely critical for capturing

whether both parties share a mutually understood post-deal vision affecting the risk of future goodwill impairment.

To formally compare the two measures, I include both FinBERT similarity and MiniLM similarity in the same probit model with year and industry fixed effects. The results in Table 4.7 column (2) show that *FinBERTSim* remains negative and statistically significant at the 5 percent level while *MiniLMSim* is insignificant. A Wald test of the equality of the two coefficients rejects the null at the 5 percent level ($p = 0.032$), indicating that FinBERT's predictive coefficient is meaningfully different from MiniLM's.

Overall, these findings support the use of FinBERT-based similarity in this study. The model's financial domain training appears to provide a stronger and more relevant measure of narrative alignment in M&A disclosures, reinforcing the main result that greater semantic alignment between acquirer and target executives predicts a lower likelihood of subsequent goodwill impairment.

## 4.5 Conclusion

This study investigates whether alignment in acquirer and target executives' deal narratives helps predict post-acquisition accounting outcomes. I find that greater semantic alignment in M&A press releases is associated with a lower likelihood of goodwill impairment within the first year after deal completion.

Meanwhile, I find that the effect of narrative alignment is more pronounced when goodwill acquired represents a larger share of the purchase price, suggesting that alignment matters most when valuations rely heavily on intangible expectations. Additionally, the predictive power of alignment is stronger in cross-industry acquisitions, implying that similarity in these cases is more likely to reflect genuine agreement on deal-specific assumptions rather than common industry terminology.

Furthermore, the results reveal that narrative alignment and analyst coverage act as substitutes in predicting impairment outcomes. While narrative alignment significantly reduces impairment likelihood for acquirers with low analyst coverage, this effect is entirely eliminated for acquirers with high analyst coverage. This finding suggests that when sophisticated external monitoring is already present through extensive analyst coverage, the incremental informational value of narrative alignment becomes negligible. Conversely, when external

oversight is limited, narrative alignment serves as a valuable coordination mechanism that helps predict deal success.

These findings indicate that the way executives frame the deal at the announcement stage contains incremental information about the credibility of valuation assumptions and the effectiveness of integration planning. Narrative alignment not only shapes market perceptions at the time of the deal but also serves as a forward-looking signal of goodwill impairment, particularly when other information intermediaries provide limited oversight. By documenting this link, the study contributes to research on narrative disclosures and M&A by highlighting the informational role of executive statements in predicting post-deal financial reporting outcomes and demonstrating how this informational value varies with the information environment.

Table 4.1 Sample Selection

| | |
|---|---|
| Domestic public M&A deals (mergers, acquisitions, or majority interest) with acquirers moving from <50% to >50% ownership, and transaction value ≥ $1 million from June 30, 2001 to December 2022 | 2,375 |
| Less observations without Compustat data | 1,268 |
| Less deals without executive statements from both acquirer and target | 239 |
| Less observations with missing variable values | 73 |
| Number of firm-year observations in the sample | 795 |

Table 4.1 reports the process of sample selection

Table 4.2 Descriptive Statistics

| | N | Mean | Min | Median | Max | SD |
|---|---|---|---|---|---|---|
| *GW* | 795 | .097 | 0.000 | 0 | 1 | .296 |
| *FinBERTSim* | 795 | .897 | 0.773 | .905 | .983 | .039 |
| *ΔOCF* | 795 | .004 | -0.233 | .002 | .238 | .062 |
| *ΔROA* | 795 | .147 | -0.326 | .151 | .46 | .115 |
| *ΔSales* | 795 | -.011 | -0.615 | .004 | .427 | .155 |
| *MTB* | 795 | 4.432 | -6.124 | 3.032 | 41.515 | 5.978 |
| *Lev* | 795 | .231 | 0.000 | .218 | .794 | .183 |
| *Size* | 795 | 8.38 | 1.534 | 8.354 | 12.949 | 2.053 |
| *Bath* | 795 | .25 | 0.000 | 0 | 1 | .433 |
| *DealSize* | 795 | .3 | 0.000 | .165 | 3.863 | .416 |
| *Bidders* | 795 | 1.044 | 1.000 | 1 | 3 | .217 |
| *Merger* | 795 | .991 | 0.000 | 1 | 1 | .093 |
| *Stock* | 795 | .148 | 0.000 | 0 | 1 | .356 |
| *Cash* | 795 | .522 | 0.000 | 1 | 1 | .5 |
| *GW_Impair_3yr* | 795 | .194 | 0.000 | 0 | 1 | .395 |
| *MA_Activity_3yr* | 795 | .316 | 0.000 | 0 | 1 | .465 |
| *LengthDif* | 795 | 3.464 | 0.000 | 3.638 | 6.089 | 1.124 |

Table 4.2 shows the descriptive statistics for all variables used in the main regression analyses. Variables are defined in Appendix C.1

Table 4.3 Narrative Alignment and Goodwill Impairment

| | (1) | (2) | (3) |
|---|---|---|---|
| VARIABLES | *GW* | *GW* | *GW* |
| *FinBERTSim* | -3.888** | -4.047** | -5.825*** |
| | (-2.287) | (-2.297) | (-3.026) |
| *ΔOCF* | 0.837 | 1.206 | 1.337 |
| | (0.850) | (1.123) | (1.164) |
| *ΔROA* | -1.228** | -1.514** | -2.015*** |
| | (-2.101) | (-2.439) | (-2.977) |
| *ΔSales* | 0.895** | 0.928** | 1.038* |
| | (2.071) | (1.960) | (1.848) |
| *MTB* | -0.018 | -0.023* | -0.019 |
| | (-1.323) | (-1.728) | (-1.497) |
| *Lev* | 0.759** | 0.977** | 0.859** |
| | (2.036) | (2.438) | (1.971) |
| *Size* | 0.037 | 0.055 | 0.040 |
| | (1.019) | (1.374) | (0.862) |
| *Bidders* | -0.544 | -0.791** | -1.018*** |
| | (-1.570) | (-2.436) | (-2.788) |
| *Merger* | -0.910* | -0.628 | -1.714*** |
| | (-1.837) | (-1.178) | (-2.686) |
| *DealSize* | 0.477** | 0.608*** | 0.684*** |
| | (2.552) | (3.312) | (3.389) |
| *Stock* | 0.071 | 0.120 | 0.140 |
| | (0.270) | (0.453) | (0.503) |
| *Cash* | 0.343** | 0.399** | 0.469** |
| | (2.081) | (2.480) | (2.320) |
| *Bath* | 0.416*** | 0.329** | 0.520*** |
| | (2.858) | (2.195) | (3.031) |
| *GW_Impair_3yr* | 0.664*** | 0.699*** | 0.816*** |
| | (4.420) | (4.568) | (4.748) |
| *MA_Activity_3yr* | -0.117 | 0.054 | 0.118 |
| | (-0.736) | (0.244) | (0.460) |
| *LengthDif* | -0.039 | -0.053 | -0.078 |
| | (-0.597) | (-0.776) | (-1.033) |
| Constant | 2.883 | 2.588 | 5.990*** |
| | (1.634) | (1.419) | (2.736) |
| Observations | 795 | 795 | 669 |
| Year FE | No | Yes | Yes |
| Industry FE | No | No | Yes |
| Pseudo R2 | 0.107 | 0.163 | 0.229 |

Table 4.3 presents results from estimating equation (1). Variables are defined in Appendix C.1. I present coefficient estimate and t-statistics (in parentheses), followed by ***, **, and *, indicating significance at the less than 1%, 5%, and 10% levels, respectively.

Table 4.4 Cross-Sectional Analysis – Goodwill Proportion and Industry Relatedness

| VARIABLES | (1)<br>*GW* | (2)<br>*GW* | (3)<br>*GW* |
|---|---|---|---|
| *FinBERTSim* | -4.378** | -9.576*** | -9.657*** |
| | (-2.234) | (-3.950) | (-3.671) |
| *FinBERTSim X PropoGoodwill* | -6.940** | | |
| | (-2.063) | | |
| *PropoGoodwill* | 5.584** | | |
| | (1.996) | | |
| *FinBERTSim X High_Coverage* | | 9.937*** | |
| | | (2.645) | |
| *High_Coverage* | | -8.695*** | |
| | | (-2.594) | |
| *FinBERTSim X Industry* | | | 6.554* |
| | | | (1.896) |
| *Industry* | | | -5.639* |
| | | | (-1.839) |
| *ΔOCF* | 1.514 | 1.317 | 1.446 |
| | (1.337) | (1.140) | (1.164) |
| *ΔROA* | -2.106*** | -2.225*** | -2.071*** |
| | (-3.255) | (-3.374) | (-3.223) |
| *ΔSales* | 0.964* | 1.020* | 0.986* |
| | (1.748) | (1.815) | (1.791) |
| *MTB* | -0.022* | -0.023* | -0.021 |
| | (-1.804) | (-1.854) | (-1.341) |
| *Lev* | 0.919* | 0.968* | 0.789* |
| | (1.763) | (1.945) | (1.852) |
| *Size* | 0.021 | -0.007 | 0.026 |
| | (0.454) | (-0.128) | (0.576) |
| *Bidders* | -1.031*** | -0.983** | -1.066*** |
| | (-2.732) | (-2.415) | (-2.858) |
| *Merger* | -1.646** | -1.506** | -1.825*** |
| | (-2.189) | (-2.084) | (-2.852) |
| *DealSize* | 0.567*** | 0.666*** | 0.663*** |
| | (2.692) | (3.256) | (3.416) |
| *Stock* | 0.103 | 0.134 | 0.142 |
| | (0.381) | (0.494) | (0.549) |
| *Cash* | 0.552*** | 0.484** | 0.549*** |
| | (2.769) | (2.387) | (2.692) |
| *Bath* | 0.608*** | 0.608*** | 0.580*** |
| | (3.568) | (3.522) | (3.304) |
| *GW_Impair_3yr* | 0.755*** | 0.837*** | 0.814*** |
| | (4.238) | (4.873) | (4.487) |
| *MA_Activity_3yr* | 0.198 | 0.112 | 0.122 |
| | (0.761) | (0.442) | (0.492) |
| *LengthDif* | -0.063 | -0.080 | -0.076 |
| | (-0.816) | (-1.034) | (-0.979) |
| Constant | 4.907** | 9.434*** | 9.658*** |
| | (2.152) | (3.541) | (3.465) |
| Observations | 669 | 669 | 669 |
| Year FE | Yes | Yes | Yes |
| Industry FE | Yes | Yes | Yes |
| Pseudo R2 | 0.239 | 0.241 | 0.236 |

Table 4.4 presents the results of the impact of goodwill acquired proportion and industry relatedness on the likelihood of goodwill impairment. I present coefficient estimate and t-statistics (in parentheses), followed by ***, **, and *, indicating significance at the less than 1%, 5%, and 10% levels, respectively.

Table 4.5 Robustness Test - Entropy Balancing

| | (1) | (2) | (3) |
|---|---|---|---|
| VARIABLES | GW | GW | GW |
| *HighFinBERTSim* | -0.365*** | -0.372*** | -0.448*** |
| | (-2.644) | (-2.636) | (-2.863) |
| *ΔOCF* | 0.508 | 0.910 | 1.201 |
| | (0.413) | (0.732) | (0.957) |
| *ΔROA* | -0.931 | -1.263** | -1.824*** |
| | (-1.567) | (-2.045) | (-2.762) |
| *ΔSales* | 0.896* | 0.956* | 1.080* |
| | (1.824) | (1.854) | (1.801) |
| *MTB* | -0.018 | -0.024* | -0.021 |
| | (-1.309) | (-1.734) | (-1.582) |
| *Lev* | 0.704* | 0.918** | 0.852* |
| | (1.861) | (2.281) | (1.958) |
| *Size* | 0.025 | 0.045 | 0.023 |
| | (0.685) | (1.088) | (0.471) |
| *Bidders* | -0.504 | -0.748** | -0.969** |
| | (-1.345) | (-2.174) | (-2.410) |
| *Merger* | -0.755 | -0.521 | -1.607** |
| | (-1.419) | (-0.956) | (-2.496) |
| *DealSize* | 0.504*** | 0.607*** | 0.675*** |
| | (2.722) | (3.227) | (3.194) |
| *Stock* | 0.050 | 0.105 | 0.074 |
| | (0.193) | (0.401) | (0.267) |
| *Cash* | 0.348** | 0.420** | 0.482** |
| | (2.084) | (2.531) | (2.352) |
| *Bath* | 0.364** | 0.270* | 0.454** |
| | (2.431) | (1.758) | (2.565) |
| *GW_Impair_3yr* | 0.627*** | 0.649*** | 0.769*** |
| | (4.136) | (4.216) | (4.489) |
| *MA_Activity_3yr* | -0.100 | 0.076 | 0.150 |
| | (-0.633) | (0.339) | (0.586) |
| *LengthDif* | -0.027 | -0.031 | -0.041 |
| | (-0.405) | (-0.450) | (-0.513) |
| Constant | -0.580 | -0.781 | 1.047 |
| | (-0.715) | (-0.790) | (0.867) |
| Observations | 795 | 795 | 669 |
| Year FE | No | Yes | Yes |
| Industry FE | No | No | Yes |
| Pseudo R2 | 0.099 | 0.154 | 0.221 |

Table 4.5 presents results from estimating equation (1) by using entropy balancing. Variables are defined in Appendix C.1. I present coefficient estimate and t-statistics (in parentheses), followed by ***, **, and *, indicating significance at the less than 1%, 5%, and 10% levels, respectively.

Table 4.6 Goodwill Impairment Magnitude and OLS Specification

| | (1) | (2) |
|---|---|---|
| VARIABLES | *Mag_Goodw* | *GW* |
| *FinBERTSim* | -0.097* | -0.643** |
| | (-1.864) | (-2.031) |
| *ΔOCF* | 0.042 | 0.212 |
| | (1.196) | (1.170) |
| *ΔROA* | -0.012 | -0.245** |
| | (-0.493) | (-2.516) |
| *ΔSales* | 0.006 | 0.068* |
| | (0.692) | (1.916) |
| *MTB* | -0.000 | -0.003* |
| | (-0.517) | (-1.674) |
| *Lev* | 0.016 | 0.099 |
| | (0.414) | (1.152) |
| *Size* | 0.002 | 0.006 |
| | (1.495) | (0.898) |
| *Bidders* | 0.015 | -0.105** |
| | (0.934) | (-2.471) |
| *Merger* | 0.014 | -0.167 |
| | (1.223) | (-1.085) |
| *DealSize* | 0.033* | 0.114*** |
| | (1.697) | (2.594) |
| *Stock* | 0.016 | 0.009 |
| | (0.951) | (0.196) |
| *Cash* | 0.009** | 0.059** |
| | (2.117) | (2.140) |
| *Bath* | 0.008 | 0.072** |
| | (1.283) | (2.490) |
| *GW_Impair_3yr* | 0.020** | 0.130*** |
| | (2.221) | (3.813) |
| *MA_Activity_3yr* | -0.007 | 0.020 |
| | (-0.880) | (0.538) |
| *LengthDif* | -0.003 | -0.010 |
| | (-1.148) | (-0.877) |
| Constant | 0.038 | 0.846** |
| | (0.644) | (2.424) |
| Observations | 783 | 783 |
| Adjusted R-squared | 0.046 | 0.067 |
| Year FE | YES | YES |
| Industry FE | YES | YES |

Table 4.6 presents results from estimating equation (1) by replacing dependent variable with magnitude of goodwill impairment and OLS specification. Variables are defined in Appendix C.1. I present coefficient estimate and t-statistics (in parentheses), followed by ***, **, and *, indicating significance at the less than 1%, 5%, and 10% levels, respectively.

Table 4.7 Alternative Similarity Measure

| | (1) | (2) |
|---|---|---|
| VARIABLES | GW | GW |
| *FinBERTSim* | | -5.359*** |
| | | (-2.592) |
| *MiniLMSim* | -0.876 | -0.301 |
| | (-1.534) | (-0.489) |
| *ΔOCF* | 1.313 | 1.264 |
| | (1.139) | (1.095) |
| *ΔROA* | -1.945*** | -1.973*** |
| | (-2.901) | (-2.916) |
| *ΔSales* | 0.953* | 1.028* |
| | (1.677) | (1.811) |
| *MTB* | -0.015 | -0.018 |
| | (-1.208) | (-1.449) |
| *Lev* | 0.824* | 0.853* |
| | (1.900) | (1.959) |
| *Size* | 0.024 | 0.040 |
| | (0.536) | (0.878) |
| *Bidders* | -1.008** | -1.063** |
| | (-2.430) | (-2.525) |
| *Merger* | -1.560** | -1.747*** |
| | (-2.492) | (-2.761) |
| *DealSize* | 0.614*** | 0.663*** |
| | (3.036) | (3.297) |
| *Stock* | 0.081 | 0.140 |
| | (0.299) | (0.502) |
| *Cash* | 0.458** | 0.452** |
| | (2.347) | (2.297) |
| *Bath* | 0.451*** | 0.513*** |
| | (2.669) | (3.014) |
| *GW_Impair_3yr* | 0.793*** | 0.816*** |
| | (4.643) | (4.750) |
| *MA_Activity_3yr* | 0.183 | 0.127 |
| | (0.721) | (0.493) |
| *LengthDif* | 0.010 | -0.071 |
| | (0.133) | (-0.944) |
| Constant | 1.052 | 5.766*** |
| | (0.837) | (2.598) |
| Observations | 669 | 669 |
| Year FE | YES | YES |
| Industry FE | YES | YES |
| Pseudo R2 | 0.218 | 0.228 |
| Wald: FinBERT = MiniLM | | 4.590 |
| p-value | | 0.032 |

Table 4.7 presents results from estimating equation (1) by replacing *FinBERTSim* variable with MiniLMSim and conducting joint test to test the significance of each variable. Variables are defined in Appendix C.1. I present coefficient estimate and t-statistics (in parentheses), followed by ***, **, and *, indicating significance at the less than 1%, 5%, and 10% levels, respectively.

# Appendix C

## C.1 Supplementary Material for Chapter 4

## Appendix 4.1 Variable Definition

| Variable | Definition | Source |
|---|---|---|
| *GW* | An indicator variable that equals 1 if the combined firm reports a goodwill impairment (GDWLIP) within the year (365 days) after the M&A is completed and 0 otherwise. | Compustat |
| *FinBERTSim* | Cosine similarity between FinBERT embeddings of acquirer and target executive statements in M&A press releases. Higher values indicate greater semantic alignment in deal narratives. | 8-K |
| *ΔOCF* | The change in acquirer cash flows from operations scaled by total assets from t−2 to t−1 | Compustat |
| *ΔROA* | The change in acquirer operating income before depreciation scaled by total assets from t−2 to t−1 | Compustat |
| *ΔSales* | The change in acquirer sales scaled by total assets from t−2 to t−1 | Compustat |
| *MTB* | The market-to-book ratio for the acquiring firm at t−1 | Compustat |
| *Lev* | The ratio of acquiring firm total debt to assets at t-1 | Compustat |
| *Size* | Natural logarithm of acquirer assets at t-1 | Compustat |
| *Bidders* | Number of bidders | Refinitiv |
| *Merger* | Indicator variable with the value of 1 if M&A event classified as “merger” and 0 otherwise | Refinitiv |
| *DealSize* | The ratio of deal price to total assets of the acquirer | Refinitiv |
| *Stock* | Indicator variable with the value of 1 if the consideration consists solely of stock and 0 otherwise | Refinitiv |
| *Cash* | Indicator variable with the value of 1 if the consideration consists solely of cash and 0 otherwise | Refinitiv |
| *Bath* | An indicator variable coded one when the change in acquirer pre-write-off net income from period t−1 to t divided by total assets at the end of t−1 falls below the median of all negative values | Compustat |
| *GW_Impair_3yr* | Indicator variable equal to 1 if the acquirer recognized any goodwill impairment in the three years prior to the deal and 0 otherwise | Compustat |
| *MA_Activity_3yr* | Indicator variable equal to 1 if the acquirer completed any M&A transaction in the three years prior to the deal and 0 otherwise | Refinitiv |
| *LengthDif* | Natural logarithm of one plus differences between total acquirer executive statements and target executive statement | 8-K |

| | | |
|---|---|---|
| *PropoGoodwill* | Proportion of goodwill acquired relative to total deal value, calculated as goodwill recognized in the acquisition divided by the transaction purchase price. | Compustat |
| *High_Coverage* | Indicator variable with the value of 1 if the acquirer's number of analyst following is above the sample median and 0 otherwise | I/B/E/S |
| *Industry* | Indicator variable equal to one if the acquirer and target share the same two-digit SIC code and 0 otherwise. | Compustat |
| *Mag_Goodw* | The amount of goodwill impairment before tax scaled by total assets | Compustat |

## Appendix 4.2 Validation of FinBERT Semantic Similarity Measure

This appendix presents two representative examples from the sample to demonstrate that the FinBERT similarity measure captures meaningful differences in narrative alignment between acquirer and target executives.

Examples of High vs. Low Semantic Similarity Scores

| Dimension | High Similarity Example | Low Similarity Example |
|---|---|---|
| Transaction | Broadcom Inc acquiring VMware Inc | Stericycle Inc acquiring Scherer Healthcare Inc |
| Date | May 26, 2022 | October 21, 2002 |
| FinBERT score | 0.971 | 0.781 |
| Acquirer Executive statement | "Building upon our proven track record of successful M&A, this transaction combines our leading semiconductor and infrastructure software businesses with an iconic pioneer and innovator in enterprise software as we reimagine what we can deliver to customers as a leading infrastructure technology company. We look forward to VMware's talented team joining Broadcom, further cultivating a shared culture of innovation and driving even greater value for our combined stakeholders, including both sets of shareholders." | "This transaction represents an important expansion by Stericycle into directly related business lines which complement our current services. We believe we can take advantage of our nationwide presence inhospitals and other healthcare providers to successfully expand Scherer's proprietary reusable sharps container and handling processes. Scherer's reusable sharps program are marketed through its Bio Systems subsidiaries in 10 Northeastern and mid-Atlantic states plus the District of Columbia" |
| Target statement | VMware has been reshaping the IT landscape for the past 24 years, helping our customers become digital businesses. We stand for innovation and unwavering support of our customers and their most important business operations and now we are extending our commitment to exceptional service and innovation by becoming the new software platform for Broadcom. Combining our assets and talented team with | "We are pleased we are able to deliver such meaningful value to our stockholders and a well-regarded and successful new owner for our employees, customers and vendors. The value this transaction will realize is a result of the efforts of our managers and employees and the support of our customers and we thank each of these constituencies for helping us accomplish this important goal for our stockholders." |

| | | |
|---|---|---|
| | Broadcom's existing enterprise software portfolio, all housed under the VMware brand, creates a remarkable enterprise software player. Collectively, we will deliver even more choice, value and innovation to customers, enabling them to thrive in this increasingly complex multi-cloud era." | |

High Similarity Analysis:

The high similarity example (0.9716) illustrates closely aligned messaging. Both the acquirer and target highlight innovation leadership, technological strength, customer value, and future growth opportunities. For instance, the acquirer frames the transaction as combining semiconductor and software capabilities with a “pioneer and innovator,” while the target stresses its long-standing role in “reshaping the IT landscape.” Despite using different wording, both statements converge on the same themes of innovation, integration, and stakeholder value creation. This overlap demonstrates how FinBERT captures semantic equivalence in deal narratives that extend beyond exact word matches.

Key Aligned Phrases in High Similarity Example

| Theme | Broadcom (Acquirer) | VMware (Target) |
|---|---|---|
| Innovation | "iconic pioneer and innovator" | "reshaping the IT landscape" |
| Technology Excellence | "leading infrastructure technology company | "remarkable enterprise software player" |
| Value Creation | "driving even greater value for our combined stakeholders | "deliver even more choice, value and innovation to customers” |
| Future Growth | “combines our semiconductor and software businesses… driving even greater value for our combined stakeholders” | “combining our assets and talented team with Broadcom’s portfolio… creates a remarkable enterprise software player” |

Low Similarity Analysis:

The low similarity example (0.7806) illustrates divergent framing. The acquirer emphasizes operational synergies and future business expansion, highlighting how the transaction complements existing services and supports integration of proprietary processes. In contrast, the target focuses primarily on transaction completion and shareholder value, framing the deal as the culmination of past managerial efforts and expressing gratitude to stakeholders. These differences reflect distinct strategic orientations: the acquirer presents a forward-looking growth narrative, while the target adopts a backward-looking, transactional perspective.

Key Divergent Phrases in Low Similarity Example

| Theme | Stericycle (Acquirer) | Scherer Healthcare (Target) |
|---|---|---|
| Time Orientation | "expansion into directly related business lines" (future growth) | "result of the efforts of our managers" (acknowledging past performance) |
| Deal Orientation | "take advantage of our nationwide presence" (growth opportunity) | "deliver meaningful value to our stockholders" (transaction completion) |
| Basis of Value | "complement our current services" (synergy/operational rationale) | "thank each of these constituencies" (stakeholder appreciation) |
| Operational vs Transaction Focus | "successfully expand Scherer's proprietary processes" (integration focus) | "helping us accomplish this important goal" (transaction milestone) |

## Conclusion

This dissertation examines strategic dimensions of corporate disclosure, investigating how design choices affect information outcomes. Chapter 2 investigates how disclosure granularity affects information transmission in partial-firm acquisitions. Chapter 3 analyzes how legal professionals shape corporate communication strategies during earnings calls. Chapter 4 examines whether linguistic patterns in M&A announcements predict subsequent goodwill impairment.

Chapter 2 examines whether disaggregated disclosure of assets and liabilities held for sale enhances information transmission to acquiring shareholders in partial-firm acquisitions. I find that higher disaggregation is associated with stronger market reactions, suggesting that detailed disclosure reduces information uncertainty. Furthermore, I show that this effect is more pronounced when deal materiality is higher, when gains or losses on disposal are larger, and when alternative information sources are limited. Additionally, I document that disaggregated disclosure is particularly valuable when there are differences between amortized cost and fair value of assets being disposed of. These results provide evidence that disclosure granularity matters for decision-usefulness in complex transaction settings.

Chapter 3 examines how General Counsel participation in top management affects corporate communication strategies during earnings calls. We find that GCs play a dual role in shaping disclosure: their presence in top management is associated with higher net positive sentiment in scripted Management Discussion sections but increased hedging language and non-answer responses during unscripted Q&A sessions. Furthermore, we show that performance-based compensation and CEO alignment strengthen the optimistic messaging effect, while longer GC tenure and higher ex-ante litigation risk amplify cautious behavior. This paper provides novel evidence on how legal professionals balance strategic communication with risk management.

Chapter 4 investigates whether narrative alignment between acquirer and target executives in M&A announcements predicts subsequent goodwill impairment. I find that greater semantic similarity between executive statements is associated with lower likelihood of goodwill impairment within the first year after deal completion. Cross-sectional analyses reveal that this relationship is stronger when goodwill represents a larger share of the purchase price and in cross-industry acquisitions. The effect disappears for acquirers with high analyst coverage, indicating that external monitoring substitutes for the informational role of narrative

alignment. This study identifies a novel early predictor of goodwill impairment through textual analysis of deal announcements.

Overall, these findings advance understanding of how disclosure design choices shape information transmission across multiple dimensions. By examining the level of detail, communication approach, and consistency of messaging, this dissertation demonstrates that effective disclosure requires careful strategic decisions that balance transparency with complexity, legal risk with market expectations, and independence with coordination. These insights contribute to disclosure theory by identifying specific design choices that enhance decision-usefulness, and inform regulatory policy regarding disclosure requirements across different corporate communication settings. The first essay suggests that standard-setters should consider requiring greater disaggregation for assets held for sale in partial-firm acquisitions. The second essay documents that legal professionals systematically influence disclosure strategies, with implications for understanding how corporate governance structures affect information transmission. The third essay indicates that textual analysis of announcement communications could help identify deals at higher risk of impairment.

## Limitations and Future Research

While this dissertation provides new insights into strategic disclosure choices, each essay is subject to limitations that suggest caution in interpreting the results and provide opportunities for future research.

An important limitation across all three essays is that the observed associations do not necessarily imply causal relationships. While I employ various econometric techniques to mitigate endogeneity concerns, including firm and year fixed effects, entropy balancing, switching sample analysis, and control variables for confounding factors, I cannot definitively establish that the relationships I document are causal rather than correlational. Future research using quasi-experimental designs, natural experiments, or regulatory changes that exogenously affect disclosure practices could provide stronger causal evidence and help distinguish between alternative explanations for the patterns I observe.

In Chapter 2, the research design assumes that the disaggregation decision by target firms is exogenous to acquirer characteristics. However, target firms may strategically choose their level of disclosure based on deal-specific factors, asset quality, or expected market reactions. Although the univariate tests show no significant differences in firm characteristics across disaggregation levels, I cannot fully rule out the possibility that unobservable factors simultaneously influence both disclosure choices and market reactions. Second, acquiring

shareholders may obtain information about target assets through multiple channels beyond mandatory disclosures, including due diligence processes, deal press releases, segment reporting, and private communications. Although I control for press release disclosures and segment reporting, I cannot fully observe or control for all information available to shareholders through private channels. Finally, the study focuses on short-window market reactions around disclosure dates, which capture immediate information effects but do not directly measure whether disaggregated disclosures ultimately improve post-acquisition performance or reduce value destruction from overpayment.

In Chapter 3, while we establish that GCs in top management are associated with segmented messaging strategies, we cannot directly observe the precise mechanism through which this influence occurs. Multiple executives contribute to call content, and we cannot determine whether the observed patterns result from GCs directly shaping language choices or from other managers responding to GC guidance. Second, although we employ entropy balancing, switching sample analysis, and CEO fixed effects to mitigate selection concerns, we cannot fully rule out the possibility that unobserved shocks (such as recent legal issues or regulatory scrutiny) drive both GC elevation and changes in communication tone. Third, we do not directly test whether this segmented messaging strategy effectively reduces litigation risk or regulatory scrutiny. Without linking disclosure choices to litigation outcomes, we cannot definitively conclude that the observed communication patterns successfully achieve their intended risk management goals. Finally, our proxies for cautious language capture different dimensions of communication strategy, and their relationship to litigation risk may vary. While Rogers et al. (2011) link positive tone to higher litigation risk, Hollander et al. (2010) find that investors react negatively to non-answer responses during conference calls, suggesting that what appears cautious from a legal perspective may not always reduce information asymmetry or investor concerns.

In Chapter 4, while I measure narrative alignment using semantic similarity between executive statements in M&A press releases, I cannot directly observe whether this alignment reflects genuine agreement on valuation assumptions or strategic messaging coordinated by investor relations teams. The observed similarity may partly capture public relations strategies rather than substantive convergence in expectations about deal synergies and integration plans. Second, the period between announcement and closing typically involves extensive due diligence and negotiation that may reconcile initial differences or reveal new misalignments not captured in the press release. Thus, the announcement narrative may not fully reflect the final valuation assumptions used in purchase price allocation and goodwill measurement at

closing. Finally, the FinBERT similarity measure, while superior to general-purpose language models in capturing financial semantics, may still reflect surface-level linguistic patterns rather than deep conceptual alignment. Although validation examples in Appendix 4.2 demonstrate meaningful variation, the measure cannot distinguish whether high similarity results from coordinated messaging, common consulting advice, or genuine strategic consensus between management teams.

These limitations notwithstanding, this dissertation makes important contributions to understanding how disclosure design choices affect information transmission and outcomes. Future research could address these limitations by employing alternative research designs, such as regulatory changes mandating specific disclosure formats, exogenous shocks to executive composition that affect corporate communication strategies, or identification strategies that isolate the causal impact of narrative alignment on deal outcomes. Additionally, future studies could explore how disclosure strategies interact with technological changes in information dissemination, the role of artificial intelligence in processing complex disclosures, and how disclosure effectiveness varies across different institutional and regulatory environments. By continuing to examine the strategic dimensions of corporate disclosure, researchers can further enhance our understanding of how firms communicate with capital markets and other stakeholders.

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