Step Zero: Reliance on the Qualitative Goodwill Impairment Assessment

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ABSTRACT: To reduce preparation costs associated with quantitative goodwill testing, the FASB introduced the "step zero" option in 2011, allowing managers to assess qualitative factors to determine whether a quantitative impairment test is necessary. Using hand-collected data from goodwill disclosures, we examine whether managers' sole reliance on the qualitative assessment to conclude that goodwill is not impaired ("reliance on the qualitative assessment") is informative or strategic. The percentage of firms relying upon the qualitative assessment increased from 15% in 2011 to 34% by 2019. When a quantitative test appears necessary, we find evidence consistent with strategic reliance on the qualitative assessment by some managers to delay impairment recognition, particularly in more recent periods and when the incentive and opportunity to delay impairments are present. Investors are more negatively surprised by subsequent impairments when managers strategically rely on a qualitative assessment, consistent with investors viewing the qualitative assessment as a credible indicator that managers do not expect an imminent impairment. We also find that managers of a non-trivial portion of firms continue to rely exclusively on the quantitative test even when it does not seem necessary. While we find no evidence that the firms exclusively relying on quantitative tests benefit from doing so, they also do not appear to incur additional reporting costs, highlighting that the tradeoffs of adopting the qualitative assessment vary by firm. Our evidence provides important insights into the ongoing merits of qualitative assessments of goodwill.

Keywords: goodwill impairment; qualitative assessment; ASU 2011-08

JEL Codes: M41, M48

1. Introduction

Goodwill is a pervasive and economically significant component of the balance sheet. Nearly 48 percent of firm-years between 2011 and 2019 report non-zero goodwill balances. Among the firm-years with goodwill, the mean (median) value is 14.7 (9.1) percent of total assets. Managerial discretion in assessing goodwill for impairment, therefore, is a nontrivial consideration. Managers were historically required to perform annual quantitative goodwill impairment tests under GAAP. In response to concerns about the burden imposed by these tests – particularly when goodwill was unlikely to be impaired – the FASB issued Accounting Standards Update 2011-08 ("ASU 2011-08"). ASC 350 now allows managers to assess qualitative factors to determine whether a more rigorous quantitative impairment test is necessary. If managers conclude it is "more likely than not" that goodwill is not impaired based on qualitative factors, they are not required to perform the quantitative assessment ("reliance on the qualitative assessment") (FASB, 2011). We study whether managers utilize the option of the qualitative goodwill assessment in a manner consistent with the FASB's intent by examining 1) the decision to rely on the qualitative assessment when a quantitative test appears necessary and 2) the decision to forgo the qualitative assessment when it appears sufficient.

Preceding the issuance of ASU 2011-08, stakeholders debated whether a simplified testing option was worth the potential loss in the decision-usefulness of reported goodwill. Supporters of a simplified testing option "strongly [advocated] the adoption of rules that allow for thoughtful judgments … over 'bright line' prescriptive tests" and emphasized the costs of the quantitative test (FedEx Corporation's comment letter to the FASB, 2011). Opponents of a simplified testing option argued that "a qualitative assessment cannot determine whether fair value is greater than or less than [carrying value]" (Valuation Research Corporation's comment letter to the FASB, 2011) and

that "the more-likely-than-not assessment… presents a risk that the recognition of goodwill impairment losses could be delayed" (KPMG LLP's comment letter to the FASB, 2011). These arguments highlight the FASB's challenge in balancing the trade-offs between lowering preparation costs and potentially eroding the timeliness of goodwill impairments.

Initial archival evidence documents that in the first few years after ASU 2011-08, firms adopted the qualitative assessment as part of their impairment testing when they faced high costs of conducting the quantitative test, and these firms did not systematically avoid recognizing impairments (Black, Krupa, and Minutti-Meza, 2022). Since then, reliance on the qualitative assessment has more than doubled—from 15% of firms in 2011 to 34% in 2019. This increase persists even in firm-years where the goodwill balance exceeds the difference between market value and book value—conditions under which the standard indicates a quantitative test is necessary—raising the possibility that managers strategically rely on the qualitative assessment.[1] We leverage data over an extended time period to reexamine whether managers appear to strategically rely solely on the qualitative assessment to delay goodwill impairments.

If managers rely on the qualitative assessment to strategically avoid an impairment in the current period, we expect that they are more likely to recognize an impairment in the near future.[2] In this case, the choice to rely solely on a qualitative assessment would be positively associated with future goodwill impairments. However, if managers rely on the qualitative assessment only when their private information indicates that goodwill is not impaired, we expect this choice to be

[1] Prior research emphasizes that examining only the period immediately following a rule change fails to capture longer term equilibrium outcomes. For example, Black, Black, Christensen, and Heninger (2012) note that studies examining the immediate effects of Regulation G "precipitately conclude" that the rule decreases the frequency of pro forma reporting, whereas they find that the temporary decline in the first two years of the rule is followed by an increase in frequency exceeding that of the period prior to Regulation G.

[2] Potepa and Thomas (2023) provide evidence that opportunistic managers can defer goodwill impairments for up to three years. In addition, most firms that rely on the qualitative assessment continue to perform a quantitative test periodically—typically within three years—which would result in an impairment if warranted. Accordingly, we examine the subsequent four years in our analyses to capture potentially delayed impairments.

negatively associated with future goodwill impairments. To test whether managers strategically rely on the qualitative assessment to delay impairments, we examine whether the likelihood of future impairment varies based on the testing method managers rely upon to conclude that goodwill is not impaired in the current period.

Unlike many other accounting standards, the qualitative assessment is available as an *unconditional option*. This flexibility implies that managers will rely on the qualitative assessment only when the expected cost savings of doing so exceed any expected incremental costs (e.g., preparation costs, audit fees, and potential scrutiny from investors or regulators). We therefore examine the firms that forgo the available cost savings and instead maintain reliance on the quantitative test, even when the qualitative assessment appears sufficient. Examining these firms provides a more complete understanding of the trade-offs managers consider in exercising discretion under ASU 2011-08.

To determine whether managers rely on the qualitative or quantitative assessment in each period, we hand-collect data from 10-K goodwill disclosures for firm-years ending between July 2011 through December 2019 with material goodwill balances (refer to Appendix A for examples). If management conducts the qualitative assessment and concludes that it is "more likely than not" that the fair value of the reporting unit exceeds the carrying value, we classify these observations as relying solely on the qualitative assessment. If management conducts the quantitative test, regardless of whether they begin with or bypass the qualitative assessment, we classify these observations as ultimately relying on the quantitative test. Managers rely solely on a qualitative assessment in approximately 26 percent of our sample years.[3] Because these firm-years, by

[3] Managers can rely on the qualitative assessment for some reporting units and the quantitative assessment for others, which they do in seven percent of our sample firm-years. As it is challenging to link firm-level outcomes to a specific reporting unit and its current year testing method for these firm-years, we exclude them from our analyses.

construction, do not have goodwill impairments, we also restrict firm-years that rely on the quantitative test to those without impairments. We identify whether a quantitative test appears necessary in each year using the difference between market and book values of equity. When the value of goodwill exceeds this difference (hereafter, firm-years with "no market value cushion"), we classify the firm-year as one in which a quantitative test appears necessary.[4] Within firm-years in which a quantitative test appears necessary, 17 percent of managers still rely solely on the qualitative assessment, which reflects an increase from 11 percent in 2011 to 24 percent in 2019.

To establish a benchmark for the relation between reliance on the qualitative assessment and future impairments, we first examine instances in which a qualitative assessment appears sufficient (firm-years with a market value cushion). We find strong evidence, that among firm-years with a market value cushion, reliance on the qualitative assessment is associated with a lower likelihood of future impairments compared to reliance on the quantitative test. This is consistent with appropriate reliance on the qualitative assessment when managers' private information indicates goodwill is less at risk of impairment (similar to the on-average effect documented by Black et al., 2022). Among firm-years with no market value cushion—when a quantitative test appears necessary—this relation is notably weaker. We find some evidence that firms relying on the qualitative assessment when a quantitative test appears necessary are less likely to record impairments in the next two years relative to quantitative users, but this difference does not persist over a four-year horizon nor after the initial implementation of ASU 2011-08. Accordingly, we also examine the implications of reliance on the qualitative assessment when opportunism is most likely – when a quantitative test appears necessary, managers have incentives to delay impairment

[4] Although firm-years with no market value cushion have a higher risk of impairment compared to those with a market value cushion, this does not necessarily imply that an impairment should be recognized. We only assume this indicates that a qualitative assessment would direct managers to perform the quantitative test.

and more opportunity to do so. Among managers who 1) face pressure from imminent equity issuances or transient investors and 2) lack strong monitoring by industry-specialist auditors or a large analyst following, reliance on a qualitative assessment is associated with a *higher* likelihood of future impairments than reliance on a quantitative test. This finding is consistent with a portion of managers strategically relying upon the qualitative assessment to delay impairment recognition.

We next explore how managers' reliance on the qualitative assessment when a quantitative test appears necessary impacts external stakeholders. We examine whether investors' reactions to future impairments vary based on the testing method managers previously relied upon to conclude that goodwill was not impaired. We find evidence that investors respond more negatively to unexpected impairments in the following year when managers rely on a qualitative assessment in the current year, relative to when they use a quantitative test. These results suggest that investors view managers' reliance on a qualitative assessment as credible, even when the value of goodwill exceeds the difference between market value and book value.[5] Investors continue to be negatively surprised even when managers have both incentives to delay impairment and weak monitoring, suggesting investors do not unwind managers' strategic reliance on the qualitative assessment.

Having considered reliance on the qualitative assessment when a quantitative test appears necessary, we turn our focus to reliance on the quantitative test when a qualitative assessment appears sufficient. ASU 2011-08 was introduced to reduce the costs associated with goodwill impairment testing by allowing firms to rely on a qualitative assessment when goodwill is unlikely to be impaired. In these situations – when a market value cushion exists – managers of most firms only rely on the quantitative test periodically to update measurable reference points for ongoing

[5] It is possible that investors may perceive a quantitative test as an indicator that goodwill is closer to impairment. Moreover, in some instances, firms conducting quantitative tests disclose specific information about how close a reporting unit is to recognizing an impairment. For example, Allegheny Technologies' 2016 10-K notes that "one reporting unit with goodwill of $470.8 million has a fair value that exceeds carrying value by 14%".

qualitative assessments (e.g., once every three years). However, managers of approximately 16 percent of firms *always* rely on the quantitative test, regardless of whether it appears necessary, which is seemingly at odds with the intent of ASU 2011-08. We examine whether these managers receive reputational benefits from continued use of the quantitative test, and at what cost, if any.

We find that managers that exclusively rely on quantitative tests are older and more experienced executives—who may view qualitative assessments as less rigorous or manage firms with fewer resource constraints. Consistent with these managers having established reporting practices that produce high-quality accounting information, these firms also exhibit fewer past restatements and internal control weaknesses. Nonetheless, we find no evidence that the market rewards these firms with reputational benefits through greater earnings response coefficients. We also find, however, that these managers may perceive little to no cost advantage in using the qualitative option. Firms that rely exclusively on quantitative tests tend to track goodwill at a more granular level already—across more reporting units—suggesting the potential cost savings from reliance on the qualitative assessment may be limited.[6] Moreover, we find no evidence that these firms incur higher reporting costs, as measured by the time to file financial statements and audit fees, relative to firms that do adopt the qualitative option when there is a market value cushion.

In sum, we show that the benefit of relying on the qualitative assessment varies by firm. For approximately 16 percent of firms, quantitative testing is sufficiently straightforward that the costs of adopting and continually justifying a less rigorous method do not outweigh the benefits. For managers that do rely on the qualitative assessment, most appear to do so appropriately, but strategic reliance on the qualitative assessment still impacts an economically significant amount

[6] Stated differently, when goodwill from different acquisitions is absorbed into fewer (larger) units, conducting a qualitative assessment may be much less costly than a quantitative test.

of goodwill. We find evidence of strategic reliance when managers have incentives to avoid impairment *and* weak monitoring; we estimate this occurs in approximately six percent of firm-years in which managers rely on the qualitative assessment despite a quantitative test appearing necessary and delays $49 billion of goodwill impairments in our sample.[7]

Our findings contribute to the literature on accounting for goodwill, which largely focuses on the classification of impairments and amortization versus impairment (e.g., Beatty and Weber, 2006; Li and Sloan, 2017). Early research on the qualitative assessment supports its appropriate implementation, on average (Black et al., 2022). Using data from the first three years after ASU 2011-08, Black et al. (2022) document that firms that adopted the qualitative option recognized more impairments than those that did not.[8] While Black et al. (2022) examine managers' initial decision to adopt the qualitative assessment as part of their impairment testing procedures, we focus on their subsequent decision *in each period* to rely on the qualitative assessment or proceed to the quantitative test—a choice that inherently depends on the firm's current economic circumstances. Focusing on periods in which a quantitative test appears necessary, we show that a subset of managers strategically delay impairments by relying on the qualitative assessment. Moreover, investors are surprised when these firms recognize impairments in the following year. Lastly, we find that managers who continue to perform the quantitative test – even when a qualitative assessment appears sufficient – do not incur excess reporting costs. Taken together, we provide multifaceted evidence on how managers exercise discretion in applying the qualitative option in each period and their long run behavior following ASU 2011-08.

[7] Within the 17 percent of firm-years with no market value cushion and in which managers rely on the qualitative assessment, six percent reflects the proportion with both incentive and opportunity to delay impairment.

[8] Their results imply that performing the qualitative assessment often directs managers to the quantitative test and ultimately, the recognition of an impairment in the current year. They do not examine, however, managers who *only* perform (i.e., rely on) the qualitative assessment to conclude that goodwill is not impaired and the circumstances in which they do so.

More broadly, we also contribute to the discussion regarding the use of "bright line" standards compared to rules that allow managers discretion in their implementation (e.g., SEC 2003; Donelson et al., 2012). This debate between rules-based standards and principles-based standards contrasts the tradeoffs between the complexities of the former and the exploitation of the latter. Prior studies find evidence consistent with strategic use of the discretion already allowed by SFAS 142 (e.g., Ramanna and Watts, 2012), and ASU 2011-08 further expanded the discretion in goodwill impairment testing. Our results suggest that auditors and regulators focus their efforts on detecting the misuse of qualitative assessments of firms in which incentives and opportunity to delay impairments are present. We also provide insights into the population for which the benefits of adopting a more principle-based standard such as the qualitative assessment may not outweigh the costs, as these tradeoffs vary by firm. Our findings should inform the FASB when considering future standards that grant managers substantial discretion, and the IASB, which is exploring changes to impairment tests with the cost and complexity for preparers in mind (IASB, 2024).

2. Background

Goodwill accounting and reporting under U.S. GAAP has evolved over many years as standard setters strive to improve the usefulness of reported goodwill for various groups of financial statement users. APB 16 and APB 17, the first goodwill-related accounting standards promulgated in the U.S., mandated that any goodwill recorded in a business combination be amortized over its useful life. Following the issuance of SFAS 142 (now ASC 350-20-35) in 2001, companies no longer amortize goodwill; instead, managers of companies with a material goodwill balance are required to perform an annual test for impairment at the reporting unit level.

The goodwill impairment test was initially required to be quantitative in nature. ASC 350-20-35 involved a two-step procedure: "The first step of the goodwill impairment test… compares

the fair value of a reporting unit with its carrying amount, including goodwill….If [a reporting unit's] fair value exceeds its carrying amount, goodwill of the reporting unit is considered not impaired…[Otherwise], the second step of the goodwill impairment test shall be performed to measure the amount of impairment loss, if any."[9] In 2011, the FASB issued ASU 2011-08 in response to concerns from financial statement preparers and auditors about the cost and complexity of performing the quantitative goodwill impairment test. ASU 2011-08 amends SFAS 142 (now ASC 350) and allows managers to perform a qualitative assessment of goodwill ("Step Zero") to determine whether a quantitative impairment test ("Step One") is necessary.[10]

The qualitative assessment permits managers to determine whether "it is more likely than not" that a reporting unit's fair value is greater than its carrying value based on the totality of all relevant "events and circumstances" that would be expected to affect reported goodwill. ASC 350-20-35-3C cites macroeconomic conditions, industry and market trends, cost factors, overall financial performance, other relevant entity-specific events, events affecting a reporting unit, or a sustained decrease in share price as examples of events and circumstances that managers should consider in their qualitative evaluation.

If management cannot conclude it is "more likely than not" that the fair value of a reporting unit exceeds its carrying value, the company must proceed to the quantitative test. According to ASC350-20-35-3B, managers can also choose to bypass the qualitative assessment and proceed

[9] In January 2017, the FASB issued ASU 2017-04, which eliminated the second step of the quantitative goodwill impairment test. Instead of calculating an impairment amount as the difference between the carrying value and implied fair value of *goodwill*, the amount of goodwill impairment is now calculated as the difference between the carrying and fair values of the *reporting unit*. This standard is effective for impairment tests beginning after December 15, 2019. Firms still have the option to perform a qualitative assessment to determine the necessity of a quantitative test.

[10] Consistent with the FASB's objective to reduce the cost and complexity of impairment testing and also to maintain consistency across all categories of long-lived intangible assets, ASU 2012-02 allows managers to assess qualitative factors to determine whether it is more likely than not that an indefinite-lived intangible asset is impaired as a basis for determining whether it is necessary to perform the quantitative impairment test when the facts and circumstances indicate a low likelihood of impairment.

directly to quantitative testing for some or all of their reporting units. If a quantitative test is performed under either of these circumstances, regardless of whether it results in an impairment, management ultimately *relies* on the quantitative test.

3. Prior Literature and Hypothesis Development

A significant body of literature examines whether managers' use of accounting discretion reflects opportunism or private information. Several studies relate specifically to goodwill impairment testing following SFAS 142 (Beatty and Weber, 2006; Ramanna and Watts, 2012; Li and Sloan, 2017). Ramanna and Watts (2012) posit two competing explanations for managers' use of the discretion in SFAS 142: the private information hypothesis, in which fair value estimates reflect managers' private information about future cash flows; and the agency explanation, in which managers use this discretion strategically. The authors find that goodwill non-impairments are more common among firms with accounting-based debt covenants and CEO bonus plans, consistent with the agency explanation. Li and Sloan (2017) find that impairments became less timely after SFAS 142, concluding that the standard resulted in "inflated goodwill balances" consistent with managers' strategic use of the discretion provided by this standard.

Given prior evidence that SFAS 142 enabled strategic goodwill accounting, it is possible that ASU 2011-08 expanded it even further. While SFAS 142 allows managers to utilize an unverifiable estimate of fair value in testing goodwill for impairment, ASU 2011-08 allows managers to completely forgo calculating an estimate of fair value, raising concerns that managers have even greater opportunities for misuse under ASU 2011-08. For example, the CFA Institute argued that "allow[ing] management to postpone the rigor of performing a…quantitative analysis [would] surely lead to an even longer delay in the reporting of impairment losses, to the detriment of investors" (CFA Institute's Comment Letter to the FASB, 2011). While SFAS 142 *mandated* a

change in goodwill accounting, however, the qualitative assessment under ASU 2011-08 is voluntary (i.e., managers can proceed directly to the quantitative test). Therefore, it is unclear ex ante whether the findings on SFAS 142 extend to ASU 2011-08 and whether managers rely on the qualitative assessment consistent with their private information or strategically. As we discuss above, Black et al. (2022) begin addressing this question and find that managers who begin impairment testing with the qualitative assessment do not systematically avoid impairment in the current year. We seek to understand whether the managers who do not impair goodwill in the current year by relying on the qualitative assessment do so appropriately.

3.1. Reliance on the Qualitative Assessment and Future Impairments Test When a Quantitative Test Appears Necessary

Managers can strategically rely on the qualitative assessment to conclude that goodwill is not impaired, even when a quantitative test appears necessary. While the qualitative assessment allows managers to rely on broad factors (e.g., macroeconomic, industry, and firm-level events) to reach the no-impairment conclusion, the quantitative test typically involves a discounted cash flow calculation requiring a series of detailed inputs (e.g., future budgets, discount rate, terminal growth rate). If management is aware that these inputs may indicate impairment, they can delay recognizing an impairment by relying on a qualitative assessment to conclude that goodwill is not impaired. Doing so would allow them to conceal this information by avoiding a quantitative test altogether. We assume, however, that even if they avoid impairment in the current year, necessary impairments cannot be delayed indefinitely. On average, managers conduct a quantitative test every three years and should face increasing difficulty in justifying repeated reliance on the qualitative assessment when indicators suggest the need for a quantitative test. Thus, strategic reliance on the qualitative assessment should only grant a temporary reprieve from an impairment.

Alternatively, it is possible that managers only rely on the qualitative assessment to conclude that goodwill is not impaired when their private information supports this conclusion. That is, if managers were to perform the quantitative test, it would likely show a substantial difference between fair value and carrying value. Even if the presence of certain indicators that a quantitative test should be performed, managers may rightfully expect that observed deterioration in these indicators is temporary and will recover. Thus, when considering the totality of relevant events and circumstances, they may appropriately conclude it is more likely than not that fair value exceeds carrying value and goodwill is not impaired. We state our first hypothesis in the null:

H1: Managers do not strategically rely on the qualitative goodwill assessment.

Given that reliance on the qualitative assessment has more than doubled since the first year it was allowed, it is possible that managers employ the qualitative option differently over time. On the one hand, managers may use the qualitative assessment more appropriately over time. When the qualitative option first became available, there was wide variation in how managers applied the test (Tysiac, 2013), in part due to a lack of guidance on practical implementation (Duff and Phelps, 2013). Over time, both regulators and auditors filled this gap (e.g., the American Institute of Certified Public Accountants 2013 goodwill impairment guide and each audit firms' goodwill reference materials), including suggestions for when to proceed to the quantitative test. So, it is possible that over time, managers have a better understanding of the conditions under which the qualitative assessment should be applied, resulting in more appropriate reliance in recent years.

On the other hand, managers may engage in greater misuse of the qualitative assessment over time. Survey evidence finds that some managers who were early adopters of reliance on the qualitative assessment still reported evaluating inputs and assumptions to traditional quantitative methods (e.g., the income or market approach) (Duff and Phelps, 2013). That is, qualitative

assessments in the early years of ASU 2011-08 may have closely resembled the more rigorous quantitative test in practice. Moreover, managers have likely become more familiar with how auditors will scrutinize their goodwill testing procedures over time, making it easier to avoid detection of misuse. Thus, it is possible that managers' reliance on the qualitative assessment has become more strategic over time. We state Hypothesis 1a in the null:

> *H1a: Managers' reliance on the qualitative goodwill assessment has not become more appropriate or more strategic over time.*

Strategic reliance on the qualitative assessment may not be prevalent enough to detect among all firm-years that appear to need a quantitative test. Rational cheater theory suggests that managers will only engage in misreporting when the benefits of doing so outweigh the costs (e.g., Becker 1968). In this setting, the benefit of delaying impairment recognition is greater when managers have stronger incentives to boost the firm's short-term performance, and the cost of delaying impairment is lower when external monitoring is weak. Thus, we expect managers will be more likely to strategically rely on the qualitative assessment despite indications that a quantitative test is necessary when they have strong incentives to delay impairment and monitoring is weak. We state Hypothesis 1b in the null:

> *H1b: Managers do not strategically rely on the qualitative goodwill assessment more when they have incentives and opportunity to delay impairment.*

3.2 Investor Perceptions of Reliance on the Qualitative Assessment When a Quantitative Test Appears Necessary

We next consider how managers' testing method in the current year impacts investors' beliefs about the likelihood of future impairments. Even when a quantitative test appears necessary, investors may still believe that managers appropriately rely on the qualitative assessment based on their private information that goodwill is unlikely to be impaired. It is also possible that, when managers conduct a quantitative test when one appears necessary, their

goodwill disclosures provide information that an impairment *is* likely to be recognized in the near future. As a result, investors may expect a lower likelihood of future impairment when managers rely on the qualitative assessment to conclude goodwill is not impaired and therefore may be more surprised when these managers recognize an impairment in the near term.

If, however, investors expect that reliance on a qualitative assessment is strategic when a quantitative test appears necessary, observing reliance on a qualitative assessment in the current year may lead them to expect that an impairment is more likely to have been delayed. In this case, investors may perceive the likelihood of future impairment to be *higher* for managers that rely on the qualitative assessment compared to managers that rely on the quantitative test to reach the conclusion that goodwill is not impaired. As a result, they may be less surprised when these managers recognize an impairment in the near term. We state Hypothesis 2 in the null:

> *H2: Investors' expectations of future impairments do not depend on the testing method managers' rely upon to conclude goodwill is not impaired in the current year.*

3.3 Reliance on the Quantitative Assessment When a Qualitative Assessment Appears Sufficient

Having explored reliance on the qualitative assessment when a quantitative test appears necessary, we shift our focus to reliance on a *quantitative* test when a qualitative assessment appears sufficient. Before the qualitative option was available, managers argued that the cost of preparing the quantitative test (which, in some instances includes engaging a valuation specialist) was excessively burdensome. The primary aim of providing the qualitative option was to lower the cost of compliance when goodwill is unlikely to be impaired. Rational managers would adopt the qualitative assessment if doing so results in lower costs for the firm. Thus, continued reliance on the quantitative assessment suggests that either 1) switching to the qualitative option does not provide cost savings to some firms in practice or 2) there is a benefit to performing the quantitative test that exceeds the cost savings of the qualitative assessment.

Reliance on the qualitative assessment may not provide any net cost savings because doing so involves its own incremental costs. Managers must invest in preparing and documenting the qualitative assessment for each reporting unit. While these costs are likely highest in the initial period of adoption, managers must continue to justify reliance on the qualitative assessment to auditors over time. Moreover, some firms may already have a relatively straightforward and low-cost process for calculating fair value at the reporting unit level.[11] In practice, most firms that adopt the qualitative assessment still perform a quantitative test at least once every three years. Thus, the cost of continuing to test goodwill quantitatively each year may be lower than adopting an alternative testing method which is only relied upon intermittently. As such, the decision to rely on the qualitative assessment may not always yield net cost savings.

It is also possible that managers may perceive reputational benefits from continuing to perform the quantitative test. Because the quantitative test is arguably more objective (e.g., the inputs to valuation models are more verifiable than qualitative statements) and less discretionary, external stakeholders such as investors or regulators may view it as more credible. Maintaining reliance on the quantitative test may therefore serve to reinforce perceptions of rigor and transparency in goodwill impairment testing. We state Hypothesis 3 in the null:

> *H3: When the qualitative assessment appears sufficient, firms that continue to rely on the quantitative test do not incur greater preparation costs or experience greater reporting benefits than firms that rely on the qualitative assessment.*

4. Data and Sample Selection

As detailed in Table 1, we begin our sample with fiscal years ending July 31, 2011, the first period in which adoption of ASU 2011-08 was available. We retain firm-years with goodwill

[11] Based on discussions with practitioners, some firms maintain a process for calculating fair value at the reporting unit level for purposes other than impairment testing (e.g., strategic planning, internal performance evaluation, etc.).

balances that comprise at least five percent of total assets, no goodwill impairments in the current year, and non-missing data for our analyses, resulting in 13,349 firm-years.[12] For each of these firm-years, we read the sections of the footnotes and MD&A that pertain to goodwill in the corresponding 10-K to determine whether management ultimately relies on a qualitative or quantitative assessment (see Appendix A for examples). If we are unable to ascertain which type of assessment management relies on based on the firm's disclosure, we exclude that firm-year from our analyses. This is the case for 3,329 observations in our hand-collection sample.[13]

Managers rely on a qualitative assessment for some reporting units and a quantitative assessment for others in 730 firm-years. We exclude these firm-years from tests of our hypotheses as we are unable to attribute firm-level outcomes to a specific testing method when managers rely on both in the same year. For the observations in which managers rely on the same testing method for all reporting units, we set our treatment variable, *Qual,* equal to one if the goodwill disclosure indicates that management relies solely on a qualitative assessment for their annual goodwill impairment test, and zero otherwise. The sample consists of 9,290 observations for 2,320 unique firms. Impairment assessments are based solely on the qualitative assessment in 26 percent of firm-years in which goodwill is not impaired. [14]

[12] According to SEC §210.5-02, filers must "state separately each class of [intangible] assets which is in excess of five percent of the total assets." By setting this threshold, we eliminate the potential issue caused by self-selection in the decision to disaggregate beyond the required level.

[13] In this setting, managers have two distinct decisions. Their first decision is whether to rely on the qualitative or quantitative method. Since firms are not required to disclose their impairment testing method, the second is whether to voluntarily disclose this information. It is possible that the most strategic users of the qualitative assessment fail to disclose their impairment testing method. To test for this possibility, we examine the incidence of impairments over the next four years for non-disclosers. In untabulated analyses, we find no evidence these non-disclosers experience a higher incidence of future impairments compared to firms that rely on the quantitative test. Given that managers choose to disclose their testing method in 75 percent of observations, we focus our analyses on the testing method choice rather than the disclosure choice. We do, however, rely on the assumption that, because of auditor oversight, management cannot falsely represent their impairment testing method.

[14] Black et al. (2022) classify 59 percent of firm-years in their sample as performing the qualitative assessment (see Black et al. (2022) Table 2). They classify firms that *perform* the qualitative assessment (at any point during their sample*)* as *qualitative firms*, whereas we classify each *firm-year* by managers' ultimate reliance on the qualitative or quantitative assessment. Thus, our classifications differ because 1) some firms that *perform* the qualitative assessment

We partition the sample into 1) firm-years in which a qualitative assessment likely indicates that a quantitative test is necessary and 2) firm-years in which qualitative assessment appears sufficient – that is, managers could conclude it is "more likely than not" that the fair value of a reporting unit exceeds its carrying value. To identify these subsamples, we use a broad indicator of impairment likelihood, *NoCushion*, which equals one if the value of goodwill exceeds the cushion between market and book value of equity, and zero otherwise.[15] For firm-years with "no market value cushion" (a "market value cushion"), we assume a quantitative test is necessary (a qualitative assessment is sufficient).

We present descriptive statistics for reliance on the qualitative assessment by year for *NoCushion* = 1, and *NoCushion* = 0 firm-years in Table 2 Panel A. Reliance on the qualitative assessment was at its lowest in 2011—which is unsurprising given ASU 2011-08 was only available for firm-years ending on or after July 31, 2011—and peaked in the later years of the sample period, reflecting wider adoption. While reliance on the qualitative assessment is lower when a quantitative test appears necessary than when a qualitative assessment appears sufficient, we observe an increase in reliance on the qualitative assessment in both samples over time (24% of *NoCushion* = 1 firms and 37% of *NoCushion* = 0 firms in 2019).

Table 2 Panel B shows the distribution of qualitative assessment reliance by GIC sector, revealing variation across sectors. For example, managers rely on a qualitative assessment for all reporting units in approximately 35 percent (21 percent) of firm-years within the real estate sector

ultimately *rely on* the quantitative assessment and 2) a significant portion of firms (84% during our sample period) rely on both methods at least once.

[15] In untabulated analyses, we examine if our findings are robust to alternative proxies for identifying firm-years in which a quantitative test appears necessary. Specifically, we use: 1) an indicator variable equal to one if the firm-year falls in the top quartile based on its ex-ante goodwill impairment probability score, calculated using a prediction model adapted from Ayres et al. (2019) and 2) an indicator variable equal to one if the firm's market-to-book ratio is less than one. Our inferences from Tables 4-9 are similar using these two alternative measures.

(industrials and healthcare sectors). Table 2 Panel C shows that 83.7 percent of firms rely on both testing methods during the sample period, illustrating the importance of examining the testing method decision at the firm-year level.[16] Notably, of the *NoCushion* = 0 firm-years—when a qualitative assessment appears sufficient—22.6 percent are associated with managers who exclusively rely on the quantitative test throughout the sample period. [17] We further discuss these firms in section 5.3. Lastly, Table 2 Panel D shows the distribution of the number of consecutive years that managers rely on the qualitative assessment before conducting a quantitative test. Most managers (77%) rely on a qualitative assessment for a maximum of three years in a row. This pattern provides some assurance that goodwill impairments cannot be delayed indefinitely.

Descriptive statistics for the variables used in our primary analyses are presented by testing method in Table 3 Panel A (B) for *NoCushion* = 0 (*NoCushion* = 1) firm-years. Across both panels, large future impairments (*LargeFutureImp*) over the next two and four years are less frequent when managers rely on the qualitative assessment, although the univariate differences are not statistically significant in Panel B; we test these differences in a multivariate setting in the following section. The control variables also provide insight into managers' testing method decisions. Across both panels, recent impairments (*RecentImp*) are less frequent and stock price momentum (*Momentum*) during the year is stronger (less negative) for firm-years in which

[16] Table 2 Panel C includes nine firms that rely exclusively on a qualitative assessment across all nine years of the sample. In untabulated analyses, we find that these firms exhibit significantly lower goodwill percentages relative to firms that use both testing methods during the sample period; specifically, goodwill represents 16% of market value for the former group, compared to 29% for the latter.

[17] In Table 2 Panel C, we classify some firms as relying on both testing methods based on their reliance on different methods across reporting units within a given year. Although we exclude these mixed-reliance firm-years from our main tests (see Table 1), we use them to help classify firms that have other firm-years with reliance on a single method that are included in our sample. Additionally in Table 2 Panel C, we require testing method data for all nine years of our sample period to classify firms as always relying on either the qualitative or quantitative method. Firms are classified as "indeterminable" if they rely on a single method in all observed (non-missing) years but have missing data in at least one sample year, in order to avoid imposing assumptions about testing methods in unobserved periods. Because the number of indeterminable firms is sizable, we conduct a robustness test assuming each firm consistently relies on the method observed in non-missing years. Our inferences remain largely unchanged (untabulated).

managers rely on a qualitative assessment, consistent with managers relying on the qualitative assessment when the risk of impairment is lower; the number of reporting units (*RepUnits*) is lower for firm-years in which managers rely on a qualitative assessment, consistent with its use when the qualitative assessment is less burdensome. In Appendix C, we examine the determinants of reliance on the qualitative assessment—outside the scope of our primary hypotheses which focus on the consequences of reliance on a qualitative assessment. The results confirm the descriptive insights in Table 3, showing that managers are more likely to rely on a qualitative assessment when firms are further from impairment, as indicated by factors such as fewer recent impairments and stronger stock price performance during the year, even when no market value cushion exists.

5. Research Design and Results

5.1. Reliance on the Qualitative Assessment and Future Goodwill Impairments

To examine whether managers' reliance on the qualitative assessment is informative or strategic (H1), we explore its implications for future impairments over the next two and four years. If managers only rely on the qualitative assessment when qualitative factors alone indicate that goodwill is not impaired, we expect they have a lower likelihood of future impairment compared to those that rely on the qualitative test. If, however, managers rely on the qualitative assessment strategically to delay impairment in the current year, they will be more likely to recognize that impairment in future years.[18] As such, we expect that strategic reliance on a qualitative assessment is associated with a higher likelihood of future impairments compared to reliance on the quantitative test. We estimate the following logistic regression:

[18] This assumption is consistent with Potepa and Thomas (2023), who find that, for acquisitions likely to be impaired, the majority of goodwill impairments are recognized within two years—suggesting that delays, while possible, tend not to persist indefinitely.

$$LargeFutureImp_{i,[t+1-t+n]} = \beta_0 + \boldsymbol{\beta_1 Qual_{it}} + \beta_2 ROA_{it} + \beta_3 Loss_{it} + \beta_4 AcqIntensity_{it} + \beta_5 Momentum_{it} + \beta_6 RecentImp_{it} + \beta_7 LnAssets_{it} + \Sigma\beta IndustryFE + \Sigma\beta YearFE + \varepsilon \quad (1)$$

Qual is an indicator variable equal to one (zero) if management relies on a qualitative (quantitative) goodwill impairment assessment. *LargeFutureImp* is an indicator variable equal to one if the firm recognizes a goodwill impairment of at least 10 percent of the firm's beginning goodwill balance in the subsequent period (either the following two- or four-year period) and zero otherwise.[19] A negative (positive) coefficient on *Qual* would indicate that managers rely solely on the qualitative assessment in a manner consistent with informative (strategic) motives.

Similar to Hayn and Hughes (2006) and Chung and Hribar (2021), we include several variables to control for overall firm performance and acquisition intensity, which are likely associated with future impairments. *ROA* is the firm's current year income before extraordinary items scaled by total assets, and *Loss* is an indicator variable equal to one if the firm has a current year net loss and zero otherwise. To capture stock market performance, we include *Momentum*, market-adjusted monthly returns over the previous 12 months. We include *AcqIntensity,* the amount of goodwill acquired in the preceding two years scaled by total assets, as Hayn and Hughes (2006) note that "firms engaged in an acquisition 'spree' tend to overpay for the acquired firms," which increases the likelihood of future goodwill impairments. We also include *RecentImp*, an indicator variable equal to one if the firm recognized a goodwill impairment in the preceding fiscal year and zero otherwise. Lastly, we include *LnAssets,* the natural log of firm assets to control for

[19] We identify future impairments using Compustat GDWLIP; this variable is sourced from firm's income statements and may include impairments of other intangible assets when they reported together. To assess the prevalence of this issue, we review the financial statements for a sample of observations where large future impairments identified based on the change in Compustat GDWL (which does not include other intangible assets) differs from our variable based on GDWLIP. We estimate that other intangible impairments impact less than three percent of firm-years with a large future impairment in our sample. Our results are robust to defining a large future impairment as one exceeding 5% of beginning goodwill (untabulated).

size, as well as industry and year fixed effects to control for cross-sectional and inter-temporal variation in impairments. We cluster standard errors at the firm level.[20]

Strategic reliance on the qualitative assessment as described by H1 can only occur when impairment is otherwise necessary. Because a firm cannot recognize an impairment without a quantitative test and because the need for a quantitative test (proxied by firm-level indicators) is more directly observable than the need for an impairment, we examine this question among firm-years when a quantitative test appears necessary (i.e., *NoCushion* = 1). We also estimate equation (1) among firm-years when a qualitative assessment appears sufficient (i.e., *NoCushion* = 0) as a benchmark for comparison.

Results from estimating equation (1) are presented in Table 4. For firm-years with *NoCushion* = 0, in columns (1) and (2), the coefficient on *Qual* is negative and highly significant, indicating that reliance on the qualitative assessment when a quantitative test is not warranted is associated with a lower likelihood of future goodwill impairments.[21] This is consistent with managers relying on the qualitative assessment when their private information indicates that there is a substantial cushion between fair value and carrying value.

For firm-years with *NoCushion* = 1, in columns (3) and (4), we find some evidence that reliance on the qualitative assessment also has a negative association with the likelihood of future

[20] We do not employ a matched control sample as we do not believe self-selection bias is a threat to our research question. The notion that certain characteristics (e.g., managers' beliefs about the underlying risk of impairment) drive the decision to rely on the qualitative assessment and are also associated with the likelihood of future impairment is the relation we aim to document. We *do* control for observable predictors of future impairments to show that reliance on the qualitative assessment contains *incremental* information about the probability of impairment.

[21] We conduct several (untabulated) robustness tests. First, given that we lose approximately 9% of observations as the window expands from two to four years, we conduct robustness tests assuming a firm recognizes an impairment if they drop out of the sample to mitigate the concern that results are driven by under-performing firms dropping out of the sample. Second, future impairments may be impacted by Covid-19 towards the end of our sample. Thus, we conduct robustness tests excluding years after 2018 for [t+1, t+2] and 2016 for [t+1, t+4]). The inferences in Tables 4-6 remain similar in these two sets of robustness analyses. Third, as the costs associated with conducting the qualitative versus quantitative assessment may differ for firms with a single reporting unit, we conduct robustness tests excluding these firms. The inferences in Tables 4-9 remain similar in these analyses.

impairment. Relative to *NoCushion* = 0 firm-years, however, this association appears weaker in the two-year horizon (although the coefficients in columns (1) and (3) are not statistically different) and disappears in the four-year horizon. While the negative coefficient on *Qual* in column (3) indicates that managers who rely on the qualitative assessment—even when a quantitative test appears necessary—do so appropriately, the results taken together raise concerns about managers relying on the qualitative assessment strategically. The insignificant coefficient on *Qual* in column (4) suggests a non-trivial proportion of managers who rely on the qualitative assessment — enough to offset those with fewer future impairments—recognize *more* future impairments in years t+3 and t+4 than those who rely on the quantitative test, consistent with the presence (though not dominance) of managers who rely strategically on the qualitative assessment. Nonetheless, as the coefficient on *Qual* is not positive in any horizon, we fail to reject the null hypothesis H1.

The average marginal effects of relying on a qualitative assessment range from a three percent (column (1)) to a six percent (column (3)) reduction in the likelihood of recognizing a large future goodwill impairment. The control variables are generally statistically significant in the predicted directions for the *NoCushion* = 0 sample.[22] The coefficients on *RecentImp* are positive and significant, suggesting that goodwill impairments tend to recur. *Momentum* and *ROA* are negatively associated with future impairments, while current period *Loss* is positively associated with future impairments, consistent with impairments following deteriorating performance.

Black et al. (2022) find that in the first three years of ASU 2011-08, firms that incorporated the qualitative option into their goodwill testing procedures had a higher incidence of impairments compared to firms that did not. Their results imply that managers who begin with the qualitative

[22] *NoCushion* = 1 firm-years, by construction, have goodwill balances exceeding the difference between market and book values of equity. This restriction likely subsumes the effects of certain control variables that also capture performance such as *ROA* and *Loss*. *NoCushion* = 0 firm-years are less restrictive, allowing for greater variation in these variables to persist.

assessment often proceed to and *rely upon* the quantitative test and still recognize impairments. Our results in Table 4 extend Black et al. (2022) by shedding light on the managers who *do not* proceed to the quantitative assessment at all; the choice to rely on the qualitative assessment to reach the no-impairment conclusion in the current year – when a qualitative assessment appears sufficient – reflects managers' private information that goodwill is less likely to be impaired in the near future. When a quantitative test appears warranted, however, this signal is partially offset by some managers who delay impairments by relying on the qualitative assessment.

5.2. Reliance on the Qualitative Assessment When a Quantitative Test Appears Necessary (No Market Value Cushion)

5.2.1 Future Impairments Over Time

In this section, we examine more closely the managers who rely on the qualitative assessment when a quantitative test appears necessary (firm-years where *NoCushion* = 1). In the first three years after the qualitative option became available, managers of firms with no market value cushion relied on the qualitative assessment less than 12% of the time. This proportion doubled by 2019. Accordingly, we examine whether the implications of reliance on the qualitative assessment for future impairments have changed over time. To test Hypothesis 1a, we modify our future impairments regression to incorporate a time trend as follows:

$$\begin{aligned} LargeFutureImp_{i,[t+1-t+n]} = {} & \beta_0 + \beta_1 Qual_{it} + \beta_2 TimeTrend_{it} + \boldsymbol{\beta_3 Qual*TimeTrend_{it}} \\ & + \beta_4 ROA_{it} + \beta_5 Loss_{it} + \beta_6 AcqIntensity_{it} + \beta_7 Momentum_{it} \\ & + \beta_8 RecentImp_{it} + \beta_9 HighRisk_{it} + \beta_{10} LnAssets_{it} \\ & + \Sigma\beta IndustryFE + \varepsilon \end{aligned} \quad (2)$$

TimeTrend is equal to the calendar year of the fiscal period end, less 2011 (e.g., 1 for 2012, 2 for 2013, etc.). The coefficient of interest is β_3, the interaction between *Qual* and *TimeTrend*. If managers' reliance on the qualitative assessment has become more appropriate over time, β_3 will

be negative. In other words, reliance on the qualitative assessment would indicate an increasingly lower likelihood of future impairment in more recent periods. If, however, managers' reliance on the qualitative assessment has become more strategic over time, we expect β_3 to be positive.

We present results in Table 5 Panel A. The coefficient on *Qual* is negative and significant in both windows, indicating that sole reliance on the qualitative assessment in the first year it became available (2011) is associated with a lower likelihood of future impairment. The coefficient on the interaction between *Qual* and *TimeTrend* (β_3) is positive and significant, suggesting that the relation between reliance on the qualitative assessment and a lower likelihood of future impairments has weakened over time.[23] Thus, we reject the null hypothesis stated in H1a.

In Panel B, we tabulate the coefficient on *Qual* from estimating equation (1) for distinct three-year windows during our sample to understand the effect of the combined coefficients on *Qual* and *Qual*TimeTrend* in Panel A. The difference in the likelihood of future impairment for managers relying on the qualitative assessment is negative and significant for both horizons in the first three-year window after the qualitative option became available (2011-2013). However, the difference is statistically insignificant for both horizons in subsequent windows (2014-2016 and 2017-2019). This change in the implications for future impairments over time could reflect an expanding set of circumstances under which managers deem reliance on the qualitative assessment appropriate. More concerningly, it could also suggest a growing prevalence of firm-years in which managers strategically rely on the qualitative assessment to delay impairment.

5.2.2 Strategic Reliance on the Qualitative Assessment

[23] The coefficient on *TimeTrend* (β_2) is also positive, suggesting the implications for future impairments have also changed over time for managers relying on the quantitative test. In untabulated analyses, we find that removing the testing method from equation (2) reveals an increase in large future impairments over time, regardless of testing method. This is consistent with increasing merger and acquisition deal values over our sample period (e.g., Bain & Company, 2020 (Figure 1.1); Adelson, Jennejohn, Nyarko, and Talley, 2025 (Figure 1b), and the accumulation of goodwill balances in the post-amortization era.

In this section, we examine Hypothesis 1b by exploring settings in which opportunism is most likely to occur. We examine reliance on the qualitative option among firm-years with no market value cushion when managers have both an incentive to delay impairment and a lack of monitoring to constrain their strategic behavior. We examine two forms of market incentives to avoid impairment: equity issuances and investor composition.[24] Prior research finds that imminent equity issuances create incentives for managers to inflate performance (e.g., Teoh et al., 1998), and Li and Sloan (2017) show that this incentive is relevant in the setting of goodwill impairments. Similarly, Bushee (1998) finds that the composition of a firm's investor base can influence managers' myopic behavior. Specifically, managers of firms with a high percentage of transient institutional ownership are more likely to engage in earnings management. Thus, we expect that the strategic reliance on the qualitative assessment is more likely when firms face significant equity issuances in the following year or have a higher percentage of transient investor ownership.

Even with incentives in place, managers may not be able to freely engage in opportunism in the presence of strong monitoring. As such, we consider two monitoring mechanisms which we expect to curb the strategic use of the qualitative assessment. First, we consider the presence of an industry specialist auditor. Prior research finds that industry specialist auditors prevent managers from engaging in a variety of strategic reporting behaviors (Reichelt and Wang, 2010). [25] Second, we consider the firm's analyst following. Managers may refrain from delaying impairment if they

[24] Prior literature documents that managers also face incentives to delay impairment recognition related to reputational concerns and compensation incentives (e.g., Ramanna and Watts, 2012; Beatty and Weber, 2006). We choose to examine equity incentives for two important reasons: 1) Data on equity issuances and investor composition are more widely available for the firm-years in our sample (relative to the data required to measure reputational concerns or compensation incentives), particularly for smaller firms in which we expect opportunism to be more prevalent. 2) Our measures of market incentives have clearer directional predictions compared to measures for reputational concerns (e.g., CEO tenure) or compensation incentives (e.g., the sensitivity of option portfolios to changes in stock price).

[25] Audit quality is often measured using an indicator for a Big 4 auditor. We employ a measure capturing industry specialist auditors assuming that this variable is less likely to be subject to self-selection bias (see DeFond and Zhang, 2014). In untabulated analyses, our inferences remain unchanged when we consider monitoring by a Big 4 auditor.

expect higher scrutiny of their financial statements by analysts (e.g., see Ayres et al., 2019). We expect managers of firms with an industry specialist auditor or higher analyst following will be less likely to strategically rely on the qualitative assessment.

To examine the impact of incentives and monitoring, we fully interact our proxies for incentives and monitoring with *Qual* and estimate equation (3) for *NoCushion* = 1 firm-years:

$$\begin{aligned} LargeFutureImp_{i[t+1-t+n]} = {} & \beta_0 + \beta_1 \boldsymbol{Qual_{it}} + \beta_2 Incentive_{it} + \beta_3 \boldsymbol{Qual_{it}} \boldsymbol{*Incentive_{it}} \\ & + \beta_4 Monitor_{it} + \beta_5 Incentive_{it} * Monitor_{it} \\ & + \beta_6 \boldsymbol{Qual_{it}} \boldsymbol{*Monitor_{it}} + \beta_7 \boldsymbol{Qual_{it}} \boldsymbol{* Incentive_{it}} \boldsymbol{*Monitor_{it}} \\ & + \beta_8 ROA_{it} + \beta_9 Loss_{it} + \beta_{10} AcqIntensity_{it} \\ & + \beta_{11} Momentum_{it} + \beta_{12} RecentImp_{it} + \beta_{13} LnAssets_{it} \\ & + \Sigma\beta IndustryFE + \Sigma\beta YearFE + \varepsilon \end{aligned} \quad (3)$$

Incentive equals *ImminentEquityIssuance*, an indicator variable equal to one if the firm reports proceeds from the sale of stock greater than two percent of total assets in the following year, or *PctTransient*, the number of shares held by transient institutional investors divided by the total number of shares held by institutional investors. *Monitor* equals *SpecialistAuditor,* an indicator variable equal to one when the firm is audited by an industry specialist, or *LnAF*, the natural log of one plus the number of analysts following the firm. H1b predicts that managers of firms with no market value cushion strategically rely on the qualitative assessment when they face incentives to avoid impairment and are not constrained by strong monitoring. We expect that in the presence of these conditions, reliance on the qualitative assessment is associated with a higher likelihood of future impairments. If this is the case, we expect the combined coefficients of β_1 + β_3 in equation (3) (the incremental effect of reliance on the qualitative assessment on future impairment in the presence of incentives and the *absence* of strong monitoring) to be positive.

The results from estimating equation (3) are presented in Table 6. In columns (1) – (3), we use an imminent equity issuance to capture the incentive to delay impairment. In column (1), we estimate equation (3) with only the incentive variable, and in columns (2) and (3), we incorporate

the effects of monitoring. We tabulate the p-values from tests of combined significance for the incremental implications of reliance on the qualitative assessment for future impairments when incentives are present and monitoring is weak ($\beta_1 + \beta_3$), as well as when incentives are present but monitoring is strong ($\beta_1 + \beta_3 + \beta_6 + \beta_7$). Consistent with H1b, there is evidence of strategic reliance on the qualitative assessment. The combined coefficients on *Qual* and *Qual*Incentive* are positive across all three columns, suggesting that reliance on the qualitative (versus the quantitative) assessment in the face of an imminent share issuance is associated with a higher likelihood of impairment in the next four years. This strategic reliance appears to be partially offset by strong monitoring (the combined coefficients $\beta_1 + \beta_3 + \beta_6 + \beta_7$ are still statistically significant in column (3) where firms are constrained by a high analyst following but not in column (2) where firms are constrained by a specialist auditor).

Inferences are similar in columns (4) – (6), where we examine pressure from transient investors as an incentive to delay impairment. In column (6), we observe an increased likelihood of impairment over the next four years for managers who rely on the qualitative assessment when they face pressure from a significant transient investor base and have a low analyst following (i.e., column (6): $\beta_1 + \beta_3 = 4.118$; p-value = 0.09). Notably, we do not observe this strategic reliance without including the impact of monitoring in column (4) or in the presence of strong monitoring in column (6) (the combined coefficients $\beta_1 + \beta_3 + \beta_6 + \beta_7$ are statistically insignificant).

Overall, the results in Table 6 suggest that managers of firms with no market value cushion appear to strategically rely on the qualitative assessment when they have incentives to delay impairment and the ability to do so undetected. Accordingly, we reject the null hypothesis stated in H1b. Our results are consistent with "[incentives] play[ing] a substantial role in explaining …discretionary items, such as goodwill write-offs" (Francis, Hanna, and Vincent, 1996).

5.2.3. Market Reaction to Future Impairments

We next consider how reliance on the qualitative assessment when a quantitative test appears necessary impacts external stakeholders. Specifically, for firms with no market value cushion that recognize an impairment in the *following year*, we examine whether the market reaction to the impairment varies based on the testing method managers rely upon in the *current year* – the most recent period in which they determined that goodwill was not impaired. We estimate the following regression for firm-quarters that include goodwill impairments in the year *t+1* following year *t* in which a quantitative test appeared necessary:

$$\begin{aligned} EACAR_{i,t+1} = \; & \beta_0 + \beta_1 UEImpairmentInd_{it+1} + \beta_2 UEEarnings_{it+1} + \beta_3 Qual_{it} \\ & + \boldsymbol{\beta_4 UEImpairmentInd_{it+1} * Qual_{it}} + \beta_5 UEEarnings_{it+1} * Qual_{it} \\ & + \Sigma\beta Controls + \Sigma\beta IndustryFE + \Sigma\beta CalendarQuarterFE + \varepsilon \end{aligned} \quad (4)$$

EACAR is the firm's three-day value-weighted adjusted return around the quarterly earnings announcement date. *UEImpairmentInd* is an indicator variable equal to one if the actual impairment exceeds the expected impairment, where the expected impairment is the amount by which book value exceeds market value, limited by the pre-impairment value of goodwill. *UEEarnings* is the earnings surprise excluding the impairment, based on I/B/E/S data if it is available and Compustat data otherwise. *UEEarnings* is measured on a per share basis and scaled by beginning of quarter stock price. We controls for market value, *MVE*, earnings volatility, *Volatility*, stock market beta, *Beta*, book-to-market, *BTM*, and negative earnings, *Loss*. β_1 captures the market response to the firm's unexpected impairment when the manager previously relied on the quantitative test to conclude goodwill was not impaired. β_4 captures any difference in the response for firms whose managers previously relied on the qualitative assessment. We expect that β_4 will be negative if investors are more negatively surprised by future impairments when managers relied on a qualitative assessment to arrive at the previous no impairment conclusion.

Results from estimating equation (4) within all firm-quarters that have an impairment in the year following a *NoCushion* = 1 firm-year are tabulated in Table 7 columns (1) through (4), with (and without) controls and fixed effects. Across columns (1) through (4), the coefficient on the interaction between *UEImpairmentInd* and *Qual* is negative, suggesting that investors are more negatively surprised by an impairment when managers previously relied on a qualitative assessment to conclude goodwill was not impaired.[26] These results suggest that reliance on a qualitative assessment may convey to investors that a future impairment is not imminent (despite the firm having no market value cushion).

Next, we examine whether these results extend to firm-years in which managers are more likely to be strategic — i.e., those with a higher likelihood of future impairment in Table 6. It is possible that the market expects reliance on the qualitative assessment to be strategic when incentives to delay impairment are present and monitoring is weak. Thus, we re-estimate equation (4) within firm-quarters with impairments in the year following a *NoCushion* = 1 firm-year in which 1) either *ImminentEquityIssuance* or *HighPctTransient* (based on the median percentage of transient investors) equals one and 2) either *SpecialistAuditor* or *HighAnalystFollowing* (based on the median analyst following by year) equals zero. Across columns (5) through (8), the coefficient on the interaction between *UEImpairmentInd* and *Qual* is negative. Investors are still more surprised by future impairments when they observe reliance on the qualitative assessment, even when managers have both incentive and opportunity to delay impairment recognition. This suggests that investors often fail to detect strategic reliance on the qualitative assessment until a future impairment is recognized. Overall, we interpret these findings as support for rejecting H2.

[26] Across all four columns, the coefficient on *UEImpairment* is not significant, indicating that investors are not surprised by the impairment when the manager relied on the quantitative test in the prior year. This is consistent with Li et al. (2011) who find that the market response to unexpected impairments is insignificant, on average, in the post-SFAS142 time period (see page 760).

5.3 Reliance on the Quantitative Test When a Qualitative Assessment Appears Sufficient (Market Value Cushion)

Having investigated reliance on the qualitative assessment when a quantitative test appears necessary, we next examine reliance on the *quantitative* test when a *qualitative* assessment appears sufficient. Given that one of the FASB's primary goals in providing the qualitative option was to lower the cost of impairment testing, we seek to understand why — despite a broad indicator that a qualitative assessment is likely sufficient — some managers still rely on the quantitative test.

We start by exploring the types of firms for which managers rely on the quantitative test even when a qualitative assessment appears sufficient (i.e., within *NoCushion* = 0 firm-years). There are two types of firms that rely on the quantitative test: 1) firms for which we can determine that managers rely on each of the qualitative and quantitative tests at least once ("*PeriodicQuants*") (N = 3,320 *NoCushion* = 0 firm-years, Table 2 Panel C (2,690 + 540)) and 2) firms for which managers always rely on the quantitative test ("*AlwaysQuants*") (N = 963 *NoCushion* = 0 firm-years, Table 2 Panel C). Of the years in which managers rely on the quantitative test despite having a market value cushion, 81% belong to *PeriodicQuants* and 19% to *AlwaysQuants.*

PeriodicQuants rely on both the qualitative and quantitative test at least once. Based both on discussions with practitioners and insights from firms' narrative goodwill disclosures, many firms maintain periodic reliance on a quantitative test regardless of whether it is warranted (e.g., once every three years). This practice provides an updated reference point for future qualitative assessments and is encouraged by auditors; see Appendix A for an example. Consistent with this anecdotal evidence, we observe that most firms that use both methods perform the qualitative assessment for no more than three consecutive years (Table 2 Panel D).

The second type of firm *never* relies on the qualitative assessment (*AlwaysQuants*)—even with a market value cushion. As *AlwaysQuants* potentially have the most to gain by adopting the qualitative option, we focus the following analyses on the 963 *NoCushion* = 0 years that belong to these firms. We compare these firm-years to the 3,754 *NoCushion* = 0 firm-years of firms that ever rely on the qualitative assessment (*PeriodicQuants* and firms that always perform the qualitative assessment).[27] We explore whether *AlwaysQuants* reap some benefit from continuing to rely on the quantitative assessment and whether this imposes any additional costs.

In Table 8, we compare characteristics of firm-years in which managers always rely on a quantitative test to those firm-years in which managers ever rely on the qualitative assessment. We first examine the characteristics included in our analyses of future impairments. *AlwaysQuants* tend to be larger firms (*LnAssets*) that track goodwill in more reporting units (*RepUnits*)– consistent with quantitative testing being more straightforward and the qualitative assessment involving higher preparation costs when goodwill is tracked more granularly. *AlwaysQuants* also appear to have stronger financial performance, with higher *ROA,* lower incidences of *Loss,* and a lower likelihood of impairment over the next four years than those that ever rely on the qualitative assessment.[28] As these firm-years all have a market value cushion, we also compare the dollar amount of the cushion (*CushionAmt*); *AlwaysQuants* exhibit a greater market value cushion compared to firms that ever rely on the qualitative assessment.

Based on discussions with practitioners, we expect that *AlwaysQuants* have more experienced managers who may view the quantitative test as part of a rigorous, established

[27] Firms that rely on the qualitative assessment in every year they appear in the sample but are present for fewer than all nine sample years are classified as "indeterminable" in Table 2 Panel C. However, we include them as firms that ever rely on the qualitative assessment in this analysis.

[28] *AlwaysQuants* have higher recent impairments, likely because – by construction – they performed the quantitative assessment in the prior period, which is a prerequisite for recognizing an impairment.

reporting process that produces high quality information. Thus, we examine differences in variables that could capture managerial experience, such as the age and tenure of the CEO and CFO. To capture information quality, we examine internal control weaknesses, restatements, and financial statement readability (e.g., Doyle, Ge, and McVay, 2007; Bonsall, Leone, Miller, and Rennekamp, 2017). *AlwaysQuants* have longer-serving CEOs, and older CEOs and CFOs compared to firms that ever rely on the qualitative assessment. While there is no difference in financial reporting readability based on *BOGScore*, *AlwaysQuants* exhibit a significantly lower incidence of both past material weaknesses and financial restatements. Altogether, these differences are consistent with the choice to always rely on the qualitative assessment being a part of well-established reporting practices that yield higher information quality.

Next, we explore whether managers who decline to adopt the qualitative assessment are perceived as having more rigorous or transparent reporting practices. If investors view this choice as an indicator of reporting quality, they may perceive earnings as more credible. We examine the earnings response coefficient for firm-years in which *NoCushion* = 0, comparing firms that always rely on the quantitative test with those that ever rely on the qualitative assessment:

$$EACAR_{it} = \beta_0 + \beta_1 AlwaysQuant_{it} + \beta_2 UEEarnings_{it} + \boldsymbol{\beta_3 AlwaysQuant_{it} * UEEarnings_{it}} + \Sigma\beta Controls + \Sigma\beta IndustryFE + \Sigma\beta YearFE + \varepsilon \quad (5)$$

We restrict this analysis to earnings announcements that are filed concurrently with the financial statements to ensure that information about the goodwill testing method managers relied upon is available. We report the results in Table 9 Panel B; the coefficient on *AlwaysQuant*UEEarnings* is not significant; Thus, we find no evidence that investors perceive earnings as being more informative for firms whose managers always rely on the quantitative test.

Lastly, we examine if managers who always perform the quantitative test incur any incremental reporting costs compared to those that ever rely on the qualitative assessment. The

primary resources that managers could save by switching to a qualitative assessment are the time spent by the financial reporting team and the audit team. Thus, we consider two proxies: the time to file the financial statements and audit fees. We estimate the following regression:

$$ReportingCost_{it} = \beta_0 + \boldsymbol{\beta_1 AlwaysQuant_{it}} + \Sigma\beta Controls + \Sigma\beta IndustryFE + \Sigma\beta YearFE + \varepsilon \quad (6)$$

ReportingCost is either *ReportingLag,* the days between the fiscal year end and the 10-K filing date, or *LnFees*, the firm's audit fees for the year. The descriptive statistics in Table 9 Panel A reveal that *AlwaysQuants* tend to file their financial statements faster and incur more audit fees than firms that ever rely on the qualitative assessment. *AlwaysQuants* are also significantly larger firms (Table 8), highlighting the importance of controlling for firm-specific characteristics. In estimating the time to file the financial statements, we control for a range of factors including firm size and complexity, whether they have a Big 4 auditor, if they report a loss, and the relative ranking of the firm's earnings surprise. In estimating audit fees, we control for the complexity of the audit, inherent risk, and specific corporate events (e.g., equity issuance) following Hribar, Kravet, and Wilson (2014). We report the results in Table 9 Panel C. In column (1), we observe no difference in the time to file between firms whose managers always rely on the quantitative test and those that ever rely on the qualitative assessment. In column (2), we also observe no difference in audit fees.[29] Overall, although managers who continue to exclusively rely on the quantitative test do not appear to reap any reputational benefits by doing so, we also find no evidence that they incur any excess reporting costs. As a result, we reject the null hypothesis stated in H3.

Our findings complement prior research which finds that external monitors do not appear to view firms that never *mention* the qualitative assessment as having lower financial reporting

[29] In untabulated analyses, our results are unchanged when we include audit-related fees and other (non-audit, non-tax, and non-IT related) fees.

risk (Black et al. 2022). The results from Tables 8 and 9, however, suggest that firms that never *rely on the qualitative assessment to conclude that goodwill is not impaired* favor more rigorous reporting practices in general. Although the market does not appear to interpret this choice as an indicator of reporting quality, these firms also do not incur excess reporting costs as a result.

6. Conclusion

We examine the implications of ASU 2011-08, which allows managers to reduce the cost of goodwill impairment testing by conducting a qualitative assessment to determine the need for a traditional quantitative test. When a quantitative test appears necessary (as indicated by the lack of a market value cushion) we find some evidence that reliance on a qualitative assessment is used appropriately by managers, but this result diminishes over time, suggesting the presence of strategic managers relying on the qualitative assessment to delay impairment. Consistent with this notion, for managers who face incentives to delay impairment and weak external monitoring, we find evidence that reliance on the qualitative assessment is *positively* associated with future impairments. We also find that investors do not appear to detect this strategic behavior and are more negatively surprised by subsequent goodwill impairments following qualitative assessments.

Despite reliance on the qualitative assessment doubling since ASU 2011-08, managers of some firms still exclusively rely on the quantitative test. We find that these firms have experienced managers with established reporting practices that yield high-quality information. Although the market may not view these firms' earnings as more credible, we find no evidence that these firms bear incremental reporting costs from continued reliance on the quantitative test. Our findings should be of interest to standard setters as they provide evidence that is relevant to discussions during ASU 2011-08's exposure draft period and ongoing discussions at the IASB.

Our conclusions rely on the assumption that managers are unlikely to delay impairments using the qualitative assessment for more than four years. If this assumption is not valid, it is possible that even more managers use the qualitative assessment to postpone or avoid impairments beyond our observation window. Our evidence that managers with incentive and opportunity to strategically rely on the qualitative assessment recognize more impairments within the next four years provides a lower bound estimate. Finally, managers' choice of impairment testing method is endogenous and their motivations are largely unobservable. Thus, we draw our conclusions regarding the implications of reliance on the qualitative assessment based on a body of empirical evidence consistent with economic models that support the idea that managers engage in strategic behavior when the benefits exceed the costs of doing so (Becker, 1968, Armstrong et al., 2022).

Our findings leave several opportunities for future research. Researchers could further examine goodwill disclosures that are unclear regarding 1) managers' impairment testing method or 2) firms' reporting units. Future studies could also explore additional consequences associated with inappropriate reliance on the qualitative assessment, such as regulatory enforcement, erosion of credibility, or delisting.

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Appendix A:
Examples of Goodwill Impairment Testing disclosure

Qualitative assessment:
Chegg, Inc.'s 2017 10-K

Goodwill represents the excess of the fair value of consideration paid over the estimated fair value of assets acquired and liabilities assumed in a business acquisition. Goodwill is not amortized but rather tested for impairment at least annually on October 1, or more frequently if certain events or indicators of impairment occur between annual impairment tests. We first assess qualitative factors to determine whether it is necessary to perform the two-step quantitative goodwill impairment test. In our qualitative assessment, we consider factors including economic conditions, industry and market conditions and developments, overall financial performance and other relevant entity-specific events in determining whether it is more likely than not that the fair value of our reporting unit is less than the carrying amount. We completed our annual impairment test on October 1 of 2016 and 2015, each of which did not result in any impairment as **our qualitative assessment did not indicate that it is more likely than not that the fair value of our reporting unit is less than the carrying amount.**

Qualitative assessment with periodic quantitative assessments:
Home Depot's 2015 10-K

Each year the Company may assess qualitative factors to determine whether it is more likely than not that the fair value of each reporting unit is less than its carrying amount as a basis for determining whether it is necessary to complete quantitative impairment assessments, **with a quantitative assessment completed at least once every three years. The Company's most recent quantitative assessment was completed in fiscal 2013.**

In fiscal 2015, the Company completed its annual assessment of the recoverability of goodwill for its U.S., Canada and Mexico reporting units. **The Company performed qualitative assessments, concluding that the fair value of the reporting units was not more likely than not less than the carrying value.** There were no impairment charges related to goodwill for fiscal 2015, 2014 or 2013.

Quantitative assessment:
Mattel, Inc.'s 2015 10-K

"When performing the quantitative two-step goodwill impairment test, Mattel utilizes the fair value based upon the discounted cash flows that the business can be expected to generate in the future (the "Income Approach"). The Income Approach valuation method requires Mattel to make projections of revenue, operating costs, and working capital investment for the reporting unit over a multi-year period. Additionally, management must make an estimate of a weighted average cost of capital that a market participant would use as a discount rate. Changes in these projections or estimates could result in a reporting unit

either passing or failing the first step of the impairment model, which could significantly change the amount of any impairment ultimately recorded.

During the third quarter of 2015, Mattel assessed its goodwill for impairment by performing the quantitative two-step goodwill impairment test. Mattel determined that its goodwill was not impaired since, for each of the reporting units, the fair value of the reporting unit exceeded its carrying value."

Qualitative Assessment for some reporting units:
Alcoa Corporation's 2012 10-K

"During the 2012 annual review of goodwill, **management performed the qualitative assessment for six reporting units**. Management concluded that it was not more likely than not that the estimated fair values of the six reporting units were less than their carrying values. As such, no further analysis was required."

"During the 2012 annual review of goodwill, **management proceeded directly to the two-step quantitative impairment test for three reporting units** as follows: the Primary Metals segment, the Alumina segment, and the Global Rolled Products segment.

Appendix B: Variable Definitions

Variable Name	Definition
AcqIntensity	The sum of acquired goodwill (Compustat ACQGDWL) over the preceding two fiscal years (t-1 and t-2) scaled by total assets (Compustat AT) at the end of year t-2, winsorized by year at the 1st and 99th percentiles
AlwaysQuant	Indicator variable equal to one if the firm always relies on the quantitative test during the sample period and zero if the firm relies on the qualitative assessment at least once during the sample period
AuditOpinion	Indicator variable equal to one if the firm receives a modified audit opinion and zero otherwise
Beta	Stock market beta, calculated over days [-252,-5] relative to the earnings announcement
Big4	Indicator variable equal to one if firm has Big 4 auditor and zero otherwise
BOGIndex	Plain English readability score of the 10-K annual report, computed using StyleWriter software. A higher score indicates lower readability. See Bonsall et al. (2017) for details. Measures are retrieved from https://kelley.iu.edu/bpm/index.html
BTM	Book value of common equity divided by market value of equity as of the end of the period
CEOAge	Age of the CEO
CEOTenure	Number of years the CEO has been in their current role
CFOAge	Age of the CFO
CFOTenure	Number of years the CFO has been in their current rule
CushionAmt	The amount by which the "cushion" between market value of equity and book value of equity (Compustat CSHO*BKVLPS) exceeds the value of goodwill (Compustat GDWL)
DebtIssuance	Indicator variable equal to one if the firm issues debt in the current year and zero otherwise (SDC)
$EACAR_{(-1,+1)}$	Raw returns minus the value-weighted returns measured around the announcement day window [-1, +1] centered at the quarterly earnings announcement
FirmAge	Number of years since the firm first appears in Compustat, measured as the difference between the current fiscal year and the earliest year with available data for the firm
ForeignSales	The ratio of foreign sales to total sales
Goodwill	Goodwill (Compustat GDWL)

HighLitRisk	Indicator variable equal to one if the firm operates in an industry with high litigation risk and zero otherwise, following Francis et al. (1994)
ImminentEquityIssance	Indicator variable equal to one if the firm has proceeds from the sale of stock greater than two percent of total assets in t+1 and zero otherwise
IndustrySpecialist	Indicator variable equal to one if the firm's auditor has a national-level industry audit fee market share greater than 30% in the firm's two-digit SIC code in a given year, and 0 otherwise. Follows the measure of Reichelt and Wang (2010).
Inventory	Inventory (Compustat INVT) scaled by beginning of year total assets
LagQual	The value of *Qual* from the previous year
LargeFutureImp	Indicator variable equal to one if the company recognizes a goodwill impairment greater than ten percent of beginning goodwill over the subsequent cumulative period and zero otherwise
Leverage	The ratio of short term debt + long term debt to total equity
LnAF	The natural log of one plus the number of analysts following the firm
LnAssets	The natural logarithm of total assets (Compustat AT)
LnClientLength	The natural logarithm of the number of years the firm has been a client of the current auditor
LnFees	Total audit fees (Audit Analytics AUDIT_FEES) for the year
LnSegments	The natural logarithm of the sum of the firm's business, operating, and geographic segments
Loss	Indicator variable equal to one if the company recognized a loss before extraordinary items (Compustat IB) for the period and zero otherwise
Momentum	Monthly buy-and-hold abnormal returns over the 12 months prior to fiscal year end, adjusted by the value-weighted index (CRSP VWRET)
MVE	The natural log of market value of equity as of the end of the fiscal period
NoCushion	Indicator variable equal to one when the value of goodwill (Compustat GDWL) exceeds the "cushion" between market value of equity and book value of equity (Compustat CSHO*BKVLPS) and zero otherwise
PastMWN	The number of material weaknesses reported by the firm over the preceding five fiscal years
PastRestateN	The number of financial restatements issued by the firm over the preceding five fiscal years

PctTransient	The percentage of the firm's institutional ownership composed of transient investors based on Bushee's (1998) classification of institutions as transient and non-transient (quasi-indexers and dedicated) investors
PeriodicQuant	Indicator variable equal to one if the firm relies on both testing methods (either across years or across reporting units)
Qual	Indicator variable equal to one (zero) if the firm's management relies on a qualitative (quantitative) assessment for all reporting units during a given year
Receivables	Receivables (Compustat RECT) scaled by beginning of year total assets
RecentImp	Indicator variable equal to one if the firm recognized a goodwill impairment in the preceding fiscal year (t-1) and zero otherwise
ReportingLag	The number of calendar days between the firm's fiscal year-end date and the filing date of its annual financial statements (Form 10-K) as reported on EDGAR
RepUnits	The number of reporting units disclosed in a company's 10-K, if disclosed; otherwise, the predicted number of reporting units using coefficients from a regression of reporting units on business segments, operating segments, and geographic segments, estimated by industry
ROA	Current year income before extraordinary items (Compustat IB) scaled by average total assets (Compustat AT), winsorized by year at the 1st and 99th percentiles
UEEarnings	Pre-impairment unexpected earnings per share defined as actual EPS minus the most recent analyst consensus EPS using IBES data; if IBES data is unavailable, the seasonal difference in pre-impairment EPS (Compustat (NIQ minus GDWLIPQ)/CSHFDQ)
UEImpairmentInd	Indicator variable equal to one if the actual goodwill impairment (Compustat GDWLIAQ) exceeds the expected impairment, where the expected impairment is defined as the amount by which book value (Compustat CEQQ - GDWLIAQ) exceeds market value (Compustat PRCCQ * CSHOQ), limited by the pre-impairment goodwill balance.(Compustat GDWLQ - GDWLIAQ), and zero otherwise
Volatility	Standard deviation of seasonal difference in EPS, calculated over trailing four years

Appendix C: Determinants of Reliance on the Qualitative Assessment

We estimate the following logistic model to understand the circumstances under which managers choose to rely on a qualitative assessment rather than a quantitative test:

$$\begin{aligned} Qual_{it} = \quad & \beta_0 + \beta_1 AcqIntensity_{it} + \beta_2 RecentImp_{it} + \beta_3 Momentum_{it} + \beta_4 RepUnits_{it} \\ & + \beta_5 GoodwillPct_{it} + \beta_6 IndustryAvgQual_{it} + \beta_7 LnAssets_{it} \\ & + \beta_8 NumGeoSeg_{it} + \beta_9 LagQual_{it} + \varepsilon \end{aligned} \quad \text{(A1)}$$

where *Qual* is an indicator variable equal to one (zero) if management relies on a qualitative (quantitative) goodwill assessment for the annual impairment test.

Managers rely on the qualitative assessment appropriately when it is "more likely than not" that goodwill is not impaired. Thus, we include measures to capture impairment risk such as recent acquisition (*AcqIntensity*) and impairment history (*RecentImp*) and performance (*Momentum*) (e.g., Gu and Lev, 2011; Hayn and Hughes, 2006). We also include the number of reporting units (*RepUnits*) as the quantitative test may be easier when goodwill is tracked more granularly across more reporting units. To capture the difficulty of justifying reliance on the qualitative assessment to the firm's monitors, we include the materiality of goodwill (*GoodwillPct)* and a measure of how common the qualitative assessment is among peers (*IndustryAvgQual).* Lastly, we include firm size (*LnAssets*) and geographic segments (*NumGeoSeg*) to capture organizational complexity.

Results of estimating the logistic determinants model for *NoCushion* = 0 and *NoCushion* = 1 firm-years are presented in Table A1. Columns (1) and (3) include *IndustryAvgQual* and *LagQual*. Columns (2) and (4) exclude these variables but include year and industry fixed effects. We designate industries based on Global Industry Classification (GIC) sectors and cluster standard errors by firm. Among *NoCushion* = 0 firm-years, we find that the likelihood of goodwill impairment, as measured by recent goodwill impairments, is negatively correlated with reliance on the qualitative assessment. Similarly, stronger recent stock performance (*Momentum*) – indicative of lower risk – is positively associated with choice to rely on a qualitative assessment. When firms have a market value cushion, the burden of the quantitative test and the justifiability of the qualitative assessment are also important factors. Firms with fewer reporting units (*RepUnits*) and less material goodwill (*GoodwillPct*) are more likely to rely on the qualitative assessment.

In contrast, when the absence of a market value cushion already implies elevated impairment risk, mitigating factors are key to justifying a qualitative assessment, as evidenced the stronger coefficients on *RecentImp* and *Momentum* within *NoCushion* = 1 firm-years. However, the coefficient on *RepUnits* is not significant. This could reflect the burden of the quantitative test being a secondary consideration if firms already have no market value cushion. Although fewer (larger) reporting units may able to "shield" goodwill from impairment when firms have a market value cushion, this ability to ward off impairment disappears when there is no market value cushion at the firm level. The coefficient on *IndustryAvgQual* is positive and significant in both samples, consistent with reliance on the qualitative assessment being easier to justify when it is common among peers. However, the negative relation between the magnitude of goodwill and the decision to rely on the qualitative assessment is weaker in *NoCushion* = 1 firm-years, likely because the (im)materiality of goodwill cannot compensate for the lack of a market value cushion.

As expected, *LagQual* strongly predicts *Qual* in columns (1) and (3). The model has "excellent" explanatory power, with an area under the Receiver Operating Characteristic ("ROC") curve of approximately 83 percent in the specifications without fixed effects (Hosmer and Lemeshow, 2000, p.162).

Overall, impairment likelihood, the burden of the quantitative test, and the justifiability of the qualitative assessment determine the testing method. Prior research finds that more highly valued firms with higher expected costs for conducting the quantitative test were early *performers* of the qualitative assessment (Black et al., 2022). Our findings provide additional insight into the factors that influence the testing method *ultimately relied upon in a given year*, conditional on whether a quantitative test appears necessary. For firm-years with no market value cushion, mitigating performance indicators (e.g., stock price trajectory) are particularly important in managers' ability to rely on the qualitative assessment. In firm-years with a market value cushion, managers can consider a broader set of factors, such as the burden of the quantitative test.

Table A1

		***NoCushion* = 0**		***NoCushion* = 1**	
		(1)	*(2)*	*(3)*	*(4)*
	Predicted Signs	*Qual* Logit	*Qual* Logit	*Qual* Logit	*Qual* Logit
AcqIntensity	(-)	-0.556	-0.001	-0.073	0.296
		(-1.57)	(-0.00)	(-0.14)	(0.76)
RecentImp	(-)	-0.054	-0.339***	-0.477*	-0.647***
		(-0.34)	(-3.00)	(-1.67)	(-2.90)
Momentum	(+)	0.262***	0.111*	1.277***	0.688***
		(3.41)	(1.93)	(5.46)	(3.84)
RepUnits	(-)	-0.088***	-0.081***	-0.064	-0.054
		(-4.60)	(-3.97)	(-1.54)	(-1.38)
GoodwillPct	(-)	-0.763***	-1.000***	-0.208	-0.323*
		(-2.71)	(-3.31)	(-1.22)	(-1.77)
IndustryAvgQual	(+)	1.316**		3.998***	
		(2.18)		(3.35)	
LnAssets	(?)	0.016	0.041	-0.015	0.003
		(0.62)	(1.34)	(-0.31)	(0.06)
NumGeoSeg	(?)	-0.009	0.003	0.004	0.012
		(-0.63)	(0.16)	(0.10)	(0.42)
LagQual	(+)	3.308***		2.850***	
		(33.24)		(16.68)	
Fixed Effects		None	Year & Industry	None	Year & Industry
Standard Error Clusters		by Firm	by Firm	by Firm	by Firm
Area under ROC Curve		0.831	0.615	0.832	0.602
Obs.		5,545	7,183	1,459	2,107

Note: *AcqIntensity* is the amount of goodwill acquired in the preceding two years scaled by total assets; *RecentImp* is an indicator variable equal to one if the firm recognized a goodwill impairment in the preceding fiscal year and zero otherwise; *Momentum* is market-adjusted monthly returns over the previous 12 months; *RepUnits* is the number of reporting units; *GoodwillPct* is goodwill as a percentage of market value of equity; *IndustryAvgQual* is the lagged industry average of *Qual; LnAssets* is the natural log of total assets; *NumGeoSeg* is the number of geographic segments; *LagQual* is the lagged value of *Qual*.

Table 1: Sample Selection

In this table, we report details on our sample selection procedure. We begin our sample in July of 2011. We exclude firm-years in which goodwill comprises less than five percent of total assets, firm-years in which an impairment is recognized in the current year, and firm-years missing data for key variables in our analyses.

	Firm-years	Unique firms
Annual observations for firm-years ending between July 31, 2011, and December 31, 2019	101,367	
Less: firm-years missing either goodwill (GDWL) or total assets (AT) in Compustat	(26,365)	
Less: firm-years for which goodwill < 5% of total assets	(52,688)	
Less: firm-years with current year impairments (GDWLIP < 0)	(3,124)	
Less: observations missing necessary data for primary analyses	(5,841)	
Sample for which hand-collection was completed	13,349	2,904
Less: firm-years for which the goodwill impairment testing method is indeterminable	(3,329)	
Less: firm-years for which management relies on the quantitative impairment test for some reporting units and qualitative assessment for others	(730)	
Firm-years for which management relies on one testing method for all reporting units	9,290	2,320

	Firm-years		
	Total	*NoCushion* = 0	*NoCushion* = 1
Firm-years for which management relies on a quantitative test for all reporting units	6,913	5,156	1,757
Firm-years for which management relies on a qualitative assessment for all reporting units	2,377	2,027	350
Sample used for tests of hypotheses	9,290	7,183	2,107

Table 2: Descriptive Statistics - Reliance on the Qualitative Assessment

In this table, we provide descriptive statistics on the use of the qualitative assessment in the sample. In Panel A, we report the frequency of reliance on the qualitative assessment by year for the pooled sample, *NoCushion* = 0, and *NoCushion* = 1 firm-years. In Panel B, we report this frequency by Global Industry Classification (GIC) sector. In Panel C, we report the breakout of firms in the sample based on managers' testing methods throughout the sample period. In Panel D, we report the distribution of the number of consecutive years *Qual* = 1 firm-years. Variable definitions appear in Appendix B.

Panel A: Qualitative assessment reliance by year among firm-years without goodwill impairments

	Pooled firm-years			***NoCushion* = 0 firm-years**			***NoCushion* = 1 firm-years**		
Year	***Qual* = 1 firm-years**	**Total firm-years**	**Percent *Qual* = 1**	***Qual* = 1 firm-years**	**Total firm-years**	**Percent *Qual* = 1**	***Qual* = 1 firm-years**	**Total firm-years**	**Percent *Qual* = 1**
2011	149	972	15%	111	638	17%	38	334	11%
2012	223	1,082	21%	185	772	24%	38	310	12%
2013	228	1,055	22%	213	879	24%	15	176	9%
2014	268	1,092	25%	246	911	27%	22	181	12%
2015	266	1,077	25%	222	848	26%	44	229	19%
2016	270	1,043	26%	236	820	29%	34	223	15%
2017	315	1,025	31%	279	843	33%	36	182	20%
2018	347	1,025	34%	273	758	36%	74	267	28%
2019	311	919	34%	262	714	37%	49	205	24%
Total	2,377	9,290	26%	2,027	7,183	28%	350	2,107	17%

Table 2, Continued

Panel B: Qualitative assessment reliance by GIC sector among firm-years without goodwill impairments									
	Pooled firm-years			*NoCushion* = 0 firm-years			*NoCushion* = 1 firm-years		
GIC Sector	*Qual* = 1 firm-years	Total firm-years	Percent *Qual* = 1	*Qual* = 1 firm-years	Total firm-years	Percent *Qual* = 1	*Qual* = 1 firm-years	Total firm-years	Percent *Qual* = 1
Consumer Discretionary	338	1,114	30%	292	894	33%	46	220	21%
Consumer Staples	101	427	24%	94	361	26%	7	66	11%
Energy	119	377	32%	93	268	35%	26	109	24%
Financial	131	465	28%	85	269	32%	46	196	23%
Healthcare	285	1,359	21%	257	1,104	23%	28	255	11%
Industrials	429	2,038	21%	341	1,517	22%	88	521	17%
Information Technology	608	2,176	28%	556	1,759	32%	52	417	12%
Materials	134	527	25%	117	437	27%	17	90	19%
Real Estate	47	133	35%	39	111	35%	8	22	36%
Telecom	142	506	28%	118	330	36%	24	176	14%
Utilities	43	168	26%	35	133	26%	8	35	23%
Total	2,377	9,290	26%	2,027	7,183	28%	350	2,107	17%

Table 2, Continued

Panel C: Firm testing patterns						
	Total		***NoCushion* = 0**		***NoCushion* = 1**	
	Firms	**%**	**Firm-years**	**%**	**Firm-years**	**%**
Firms that rely on both testing methods (across different reporting units in the same year)	241	23.6%	540	12.7%	178	15.9%
Firms that rely on both testing methods across different years in sample	614	60.1%	2,690	63.1%	690	61.8%
Firms that rely on the qualitative assessment for all years in sample	9	0.9%	72	1.7%	4	0.4%
Firms that rely on the quantitative test for all years in sample	158	15.5%	963	22.6%	245	21.9%
	1,022	100.0%	4,265	100.0%	1,117	100.0%
Indeterminable	1,298		2,918		990	
Total	2,320		7,183		2,107	

Panel D: Consecutive *Qual* = 1 Years for 614 firms that rely on both methods during the sample			
Maximum Consecutive *Qual* = 1 Years	**Number of Firms**	**% of Firms**	**Cumulative % of Firms**
1 Year	201	33%	33%
2 Years	165	27%	60%
3 Years	106	17%	77%
4 Years	60	10%	87%
5 Years	41	7%	93%
6 Years	22	4%	97%
7 Years	11	2%	99%
8 Years	8	1%	100%
Total	614	100%	

Table 3: Descriptive Statistics

In this table, we report descriptive statistics for the variables included in our determinants and future impairments analyses. In Panel A (Panel B), we report descriptive statistics for the *NoCushion* = 0 (*NoCushion* = 1) sample partitioned by the value of *Qual*. *NoCushion* = 0 (1) when the value of goodwill does not exceed (exceeds) the difference between market value of equity and book value of equity. *Qual* = 0 (1) indicates reliance on a quantitative (qualitative) test for all reporting units in a given year. We report T-statistics for tests of mean differences in each panel. *, **, and *** indicate statistical significance at the p-value < 0.10, 0.05, and 0.01 levels, respectively. Variable definitions appear in Appendix B.

Panel A: Descriptive Statistics - *NoCushion* = 0 Firm-years by Testing Method

	***Qual* = 0**			***Qual* = 1**			**T-Test of Means**	
	N	**Mean**	**P50**	**N**	**Mean**	**P50**	**Diff**	**T-Stat**
AcqIntensity	5,156	0.05	0.00	2,027	0.05	0.00	-0.00	(-0.61)
RecentImp	5,156	0.08	0.00	2,027	0.06	0.00	0.03***	(3.74)
Momentum	5,156	0.07	0.02	2,027	0.09	0.05	-0.02*	(-1.74)
RepUnits	5,156	3.69	3.00	2,027	3.15	3.00	0.54***	(7.39)
TotalAssets	5,156	7,324	1,588	2,027	7,405	1,485	-81	(-0.17)
ROA	5,156	0.03	0.05	2,027	0.04	0.06	-0.02***	(-4.85)
Loss	5,156	0.20	0.00	2,027	0.16	0.00	0.03***	(3.34)
$LargeFutureImp_{[t+1,t+2]}$	4,680	0.11	0.00	1,866	0.07	0.00	0.03***	(3.96)
$LargeFutureImp_{[t+1,t+4]}$	4,236	0.20	0.00	1,711	0.17	0.00	0.03**	(2.57)
ImminentEquityIssuance	4,601	0.19	0.00	1,764	0.19	0.00	0.00	(-0.02)
PctTransient	5,013	0.21	0.19	1,969	0.21	0.19	0.00	(0.25)
IndustrySpecialist	4,421	0.27	0.00	1,694	0.24	0.00	0.03**	(2.50)
AnalystFollowing	4,979	10.04	8.00	1,945	10.59	8.00	-0.55***	(-2.64)

Panel B: Descriptive Statistics - *NoCushion* = 1 Firm-years by Testing Method

	***Qual* = 0**			***Qual* = 1**			**T-Test of Means**	
	N	**Mean**	**P50**	**N**	**Mean**	**P50**	**Diff**	**T-Stat**
AcqIntensity	1,757	0.06	0.00	350	0.07	0.00	-0.00	(-0.48)
RecentImp	1,757	0.13	0.00	350	0.08	0.00	0.06***	(2.89)
Momentum	1,757	-0.17	-0.18	350	-0.10	-0.11	-0.06***	(-3.29)
RepUnits	1,757	3.26	3.00	350	3.01	2.37	0.25*	(1.78)
TotalAssets	1,757	7,625	1,475	350	9,055	1,634	-1430	(-1.27)
ROA	1,757	0.00	0.02	350	0.00	0.02	-0.00	(-0.72)
Loss	1,757	0.32	0.00	350	0.27	0.00	0.05*	(1.85)
$LargeFutureImp_{[t+1,t+2]}$	1,555	0.28	0.00	320	0.24	0.00	0.04	(1.61)
$LargeFutureImp_{[t+1,t+4]}$	1,432	0.43	0.00	294	0.40	0.00	0.03	(1.00)
ImminentEquityIssuance	1,542	0.10	0.00	293	0.07	0.00	0.03*	(1.69)
PctTransient	1,689	0.21	0.18	327	0.20	0.17	0.01	(1.28)
IndustrySpecialist	1,538	0.21	0.00	310	0.19	0.00	0.02	(0.83)
AnalystFollowing	1,594	7.61	5.00	317	7.71	6.00	-0.09	(-0.24)

Table 4: Future Goodwill Impairments

In this table, we report results from the future goodwill impairments analysis based on logistic regressions (equation (1), below). The dependent variable is *LargeFutureImp,* which equals one if the company recognizes a goodwill impairment greater than ten percent of beginning goodwill over the subsequent cumulative period and zero otherwise. Columns 1 and 2 (columns 3 and 4) report coefficients from estimating equation (1) within *NoCushion* = 0 (*NoCushion* = 1) firm-years. T-statistics are reported in parentheses. *, **, and *** indicate statistical significance at the p-value < 0.10, 0.05, and 0.01 levels, respectively. Variable definitions appear in Appendix B.

$$LargeFutureImp_{i,[t+1-t+n]} = \beta_0 + \boldsymbol{\beta_1 Qual_{it}} + \beta_2 ROA_{it} + \beta_3 Loss_{it} + \beta_4 AcqIntensity_{it} + \beta_5 Momentum_{it} + \beta_6 RecentImp_{it} + \beta_7 LnAssets_{it} + \Sigma\beta\, IndustryFE + \Sigma\beta\, YearFE + \varepsilon \quad (1)$$

	***NoCushion* = 0**		***NoCushion* = 1**	
	(1)	*(2)*	*(3)*	*(4)*
	LargeFutureImp		***LargeFutureImp***	
	[t+1,t+2]	***[t+1, t+4]***	***[t+1, t+2]***	***[t+1, t+4]***
Qual	-0.439***	-0.226**	-0.337*	-0.159
	(-3.64)	(-2.02)	(-1.77)	(-0.85)
ROA	-0.662	-1.175**	-0.318	-0.293
	(-1.51)	(-2.35)	(-0.38)	(-0.32)
Loss	0.425**	0.301*	0.255	0.280
	(2.57)	(1.87)	(1.53)	(1.57)
AcqIntensity	0.125	0.095	0.228	0.080
	(0.33)	(0.29)	(0.61)	(0.21)
Momentum	-0.674***	-0.481***	-0.778***	-0.582***
	(-5.33)	(-5.36)	(-3.62)	(-3.22)
RecentImp	0.558***	0.604***	0.159	0.144
	(3.95)	(4.97)	(0.94)	(0.85)
LnAssets	-0.172***	-0.200***	-0.151***	-0.149***
	(-4.74)	(-5.30)	(-3.83)	(-3.44)
Fixed Effects	Year & Industry	Year & Industry	Year & Industry	Year & Industry
Standard Error Clusters	by Firm	by Firm	by Firm	by Firm
Qual = 1 Obs.	1,866	1,711	320	294
LargeFutureImp = 1 Obs.	634	1,152	514	738
Obs.	6,546	5,947	1,875	1,726

Table 5: Time Trend in Future Goodwill Impairments within *NoCushion* = 1 Firm-years

In Panel A, we report results from the time trend analysis of future goodwill impairments based on logistic regressions (equation (2), below). The dependent variable is *LargeFutureImp,* which equals one if the company recognizes a goodwill impairment greater than ten percent of beginning goodwill over the subsequent cumulative period and zero otherwise. T-statistics are reported in parentheses. In Panel B, we report the coefficient on *Qual* from estimating equation (1) excluding year fixed effects for distinct three-year windows. *, **, and *** indicate statistical significance at the p-value < 0.10, 0.05, and 0.01 levels, respectively. Variable definitions appear in Appendix B.

$$LargeFutureImp_{i,[t+1-t+n]} = \beta_0 + \beta_1 Qual_{it} + \beta_2 TimeTrend_{it} + \boldsymbol{\beta_3 Qual*TimeTrend_{it}} + \beta_4 ROA_{it} + \beta_5 Loss_{it} + \beta_6 AcqIntensity_{it} + \beta_7 Momentum_{it} + \beta_8 RecentImp_{it} + \beta_9 HighRisk_{it} + \beta_{10} LnAssets_{it} + \Sigma\beta IndustryFE + \varepsilon \quad (2)$$

Panel A: Results from estimating equation (2)		
	(1)	(2)
	[t+1,t+2]	[t+1,t+4]
Qual	-0.921**	-0.738**
	(-2.42)	(-2.13)
TimeTrend	0.075***	0.053*
	(2.87)	(1.89)
*Qual*TimeTrend*	0.119*	0.118*
	(1.79)	(1.89)
Control Variables	Included	Included
Fixed Effects	Industry	Industry
Standard Error Clusters	by Firm	by Firm
Qual = 1 Obs.	320	294
LargeFutureImp = 1 Obs.	514	738
Obs.	1,875	1,726

Panel B: Coefficient on *Qual* from estimating equation (1) from Table 4 for distinct three-year windows		
	[t+1,t+2]	[t+1,t+4]
2011-2013	-0.831**	-0.732**
2014-2016	-0.418	-0.111
2017-2019	-0.067	0.039

Table 6: Future Goodwill Impairments – Incentive & Opportunity within *NoCushion* = 1 Firm-years

In this table, we report results from the future goodwill impairments analysis based on logistic regressions (equation (3), below). Control variables are collapsed for brevity. In columns 1-3 (4-6), we report results with *ImminentEquityIssuance* (*PctTransient*) as $Incentive_{it}$. In columns 1 and 4, we report results without the effect of monitoring. In columns 2 and 5 (3 and 6), we incorporate $SpecialistAuditor_{it}$ ($LnAF_{it}$) as $Monitor_{it}$. T-statistics are reported in parentheses. Below each panel, we tabulate the p-values from tests of combined significance for key coefficients of interest. *, **, and *** indicate statistical significance at the p-value < 0.10, 0.05, and 0.01 levels, respectively. Variable definitions appear in Appendix B.

$$\begin{aligned} LargeFutureImp_{i,[t+1-t+4]} = {} & \beta_0 + \beta_1 \boldsymbol{Qual_{it}} + \beta_2 Incentive_{it} + \beta_3 \boldsymbol{Qual_{it}}\boldsymbol{*Incentive_{it}} + \beta_4 Monitor_{it} + \beta_5\, Incentive_{it}*Monitor_{it} \\ & + \beta_6 \boldsymbol{Qual*Monitor_{it}} + \beta_7 \boldsymbol{Qual*Incentive_{it}*Monitor_{it}} + \beta_8 ROA_{it} + \beta_9 Loss_{it} + \beta_{10} AcqIntensity_{it} \\ & + \beta_{11} Momentum_{it} + \beta_{12} RecentImp_{it} + \beta_{13} LnAssets_{it} + \Sigma\beta\, IndustryFE + \Sigma\beta\, YearFE + \varepsilon \end{aligned} \quad (3)$$

Table 6, Continued

Incentive =	*ImminentEquityIssuance*			*PctTransient*		
Monitor =		*SpecialistAuditor*	*LnAF*		*SpecialistAuditor*	*LnAF*
	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	[t+1, t+4]	[t+1, t+4]	[t+1, t+4]	[t+1, t+4]	[t+1, t+4]	[t+1, t+4]
Qual	-0.323	-0.402	-0.505	-0.118	-0.159	-1.612*
	(-1.61)	(-1.62)	(-0.86)	(-0.39)	(-0.45)	(-1.85)
Incentive	-0.320	-0.443*	0.192	-0.236	-0.063	-0.856
	(-1.44)	(-1.72)	(0.34)	(-0.55)	(-0.14)	(-0.70)
*Qual*Incentive*	1.406**	2.023**	3.657**	-0.273	-0.120	5.730*
	(2.14)	(2.46)	(2.06)	(-0.25)	(-0.10)	(1.87)
Monitor		-0.066	-0.007		0.209	-0.034
		(-0.30)	(-0.04)		(0.72)	(-0.16)
*Incentive*Monitor*		0.026	-0.308		-1.131	0.089
		(0.04)	(-0.93)		(-1.09)	(0.14)
*Qual*Monitor*		-0.038	0.103		0.430	0.796*
		(-0.08)	(0.39)		(0.46)	(1.89)
*Qual*Incentive*Monitor*		-1.822	-1.214		-2.413	-3.081**
		(-1.30)	(-1.48)		(-0.76)	(-1.96)
Control Variables	Included	Included	Included	Included	Included	Included
Fixed Effects	Industry & Year	Industry & Year	Industry & Year	Industry & Year	Industry & Year	Industry & Year
Standard Error Clusters	by Firm	by Firm	by Firm	by Firm	by Firm	by Firm
Qual = 1 Obs.	260	234	237	274	244	251
LargeFutureImp = 1 Obs.	682	602	602	698	620	621
Obs.	1,606	1,408	1,464	1,651	1,456	1,507
$\beta_1 + \beta_3$	P-values for the incremental effect of *Qual* when incentives are present and monitoring is weak					
	0.09*	0.04 **	0.07*	0.66	0.77	0.09*
$\beta_1 + \beta_3 + \beta_6 + \beta_7$	P-values for the incremental effect of *Qual* when incentives are present and monitoring is strong					
		0.83	0.06*		0.32	0.20

Table 7: Market Reaction to Future Impairments within *NoCushion* = 1 Firm-years

In this table, we report results from examining market reactions to future impairments based on testing method (equation (4), below). The dependent variable is the 3-day earnings announcement return. Columns 1 - 4 (5 - 8) report results from estimating within all firm-years in which *NoCushion* = 1 (firm-years in which *NoCushion* = 1, either *Incentive* (*ImminentEquityIssuance* or *HighPctTransient*) = 1, and either *Monitor* (*SpecialistAuditor* or *HighAnalystFollowing*) = 0). Columns 1, 3, 5, and 7 (2, 4, 6, and 8) present estimates for the model without controls (including untabulated controls for *MVE*, *Volatility*, *Beta*, *BTM*, and *Loss*). Columns 1 - 2 and 5 - 6 (3 - 4 and 7 – 8) exclude (include industry and calendar-quarter) fixed effects. T-statistics are reported in parentheses. *, **, and *** indicate statistical significance at the p-value < 0.10, 0.05, and 0.01 levels, respectively. Variable definitions appear in Appendix B.

$$EACAR_{i,t+1} = \beta_0 + \beta_1 UEImpairmentInd_{it+1} + \beta_2 UEEarnings_{it+1} + \beta_3 Qual_{it} + \boldsymbol{\beta_4 UEImpairmentInd_{it+1} * Qual_{it}} + \beta_5 UEEarnings_{it+1} * Qual_{it} + \beta_6 MVE_{it+1} + \beta_7 Volatility_{it+1} + \beta_8 Beta_{it+1} + \beta_9 BTM_{it+1} + \beta_{10} Loss_{it+1} + \Sigma\beta IndustryFE + \Sigma\beta CalendarQuarterFE + \varepsilon \quad (4)$$

Panel A: Descriptive Statistics by *Qual*

	***Qual* = 0**				***Qual* = 1**				**T-Test of Means**	
	N	**Mean**	**SD**	**P50**	**N**	**Mean**	**SD**	**P50**	**Difference**	**T-stat**
$EACAR_{(-1,1)}$	312	-0.02	0.13	-0.01	44	-0.01	0.11	0.00	-0.00	(-0.17)
UEEarnings	312	-0.01	0.13	0.00	44	0.01	0.05	0.00	-0.02	(-1.01)
UEImpairmentInd	311	0.77	0.42	1.00	43	0.93	0.26	1.00	-0.16*	(-2.45)

Table 7, continued

Panel B: Market Reaction Regression

	***NoCushion* = 1**				***NoCushion* = 1 & Either *Incentive* =1 & Either *Monitor* = 0**			
	(1) $EACAR_{(-1,+1)}$	(2) $EACAR_{(-1,+1)}$	(3) $EACAR_{(-1,+1)}$	(4) $EACAR_{(-1,+1)}$	(5) $EACAR_{(-1,+1)}$	(6) $EACAR_{(-1,+1)}$	(7) $EACAR_{(-1,+1)}$	(8) $EACAR_{(-1,+1)}$
UEEarnings	0.012***	0.011***	0.012***	0.011***	0.011*	0.011**	0.007	0.008
	(3.72)	(3.42)	(3.66)	(3.12)	(1.96)	(2.01)	(1.22)	(1.29)
UEImpairmentInd	-0.005	-0.007	-0.000	-0.005	0.038	0.017	0.002	-0.025
	(-0.34)	(-0.40)	(-0.01)	(-0.27)	(1.51)	(0.51)	(0.07)	(-0.57)
Qual	0.120**	0.110**	0.157***	0.142**	0.216***	0.196***	0.236***	0.213**
	(2.42)	(2.09)	(3.18)	(2.57)	(4.47)	(3.51)	(2.71)	(2.17)
*Qual*UEImpairmentInd*	-0.104***	-0.098**	-0.131***	-0.130***	-0.127***	-0.105**	-0.161***	-0.147*
	(-2.64)	(-2.29)	(-3.74)	(-3.35)	(-3.40)	(-2.06)	(-2.81)	(-1.96)
*Qual*UEEarnings*	-0.006	-0.004	-0.008	-0.004	-0.015	-0.015	-0.016	-0.016
	(-0.87)	(-0.57)	(-1.04)	(-0.49)	(-1.56)	(-1.49)	(-1.45)	(-1.26)
Adjusted R^2	0.0546	0.0440	0.1049	0.1002	0.0351	0.0041	0.1122	0.0946
Controls	None	Included	None	Included	None	Included	None	Included
Fixed Effects	None	None	Industry & Calendar Quarter	Industry & Calendar Quarter	None	None	Industry & Calendar Quarter	Industry & Calendar Quarter
Standard Error Clusters	by Firm	by Firm	by Firm	by Firm	by Firm	by Firm	by Firm	by Firm
Obs. where *Qual* = 1	43	42	43	42	19	19	18	18
Observations	354	339	350	335	144	140	138	133

Table 8: Reliance on the Quantitative Assessment within *NoCushion* = 0 Firm-years

In this table, we compare descriptive statistics for *NoCushion* = 0 firm-years partitioned by the value of *AlwaysQuant*. *AlwaysQuant* = 1 when a firm relies on the quantitative test during all years of the sample (2011-2019), and zero if we are able to determine that the firm relies on the qualitative assessment at least once during the sample period. We report T-statistics for tests of mean differences between the *AlwaysQuant* = 1 and *AlwaysQuant* = 0 subsamples. *, **, and *** indicate statistical significance at the p-value < 0.10, 0.05, and 0.01 levels, respectively. Variable definitions appear in Appendix B.

	AlwaysQuant = 1			***AlwaysQuant = 0***			**T-Test of Means**	
	N	**Mean**	**P50**	**N**	**Mean**	**P50**	**Difference**	**T-Stat**
Future Impairments and Controls								
AcqIntensity	963	0.05	0.00	3,754	0.05	0.00	-0.01	(-1.53)
RecentImp	963	0.09	0.00	3,754	0.07	0.00	0.02**	(2.47)
Momentum	963	0.07	0.05	3,754	0.09	0.05	-0.02	(-1.31)
TotalAssets	963	12,220	2,890	3,754	7,136	1,726	5,084***	(7.51)
RepUnits	963	4.88	4.00	3,754	3.44	3.00	1.44***	(13.89)
ROA	963	0.05	0.06	3,754	0.05	0.06	0.01**	(2.17)
Loss	963	0.10	0.00	3,754	0.15	0.00	-0.06***	(-4.56)
CushionAmt	963	10,588	2,402	3,754	6,253	1,150	4,335***	(4.87)
$LargeFutureImp_{[t+1,t+2]}$	953	0.08	0.00	3,520	0.09	0.00	-0.01	(-0.91)
$LargeFutureImp_{[t+1,t+4]}$	933	0.14	0.00	3,271	0.18	0.00	-0.04***	(-2.62)
Information Quality								
BOGIndex	933	88.47	88.00	3,613	88.80	88.00	-0.33	(-1.30)
PastMatWeakN	963	0.23	0.00	3,754	0.49	0.00	-0.26***	(-2.85)
PastRestateN	963	0.86	1.00	3,754	0.95	1.00	-0.09**	(-2.15)
Managerial Experience								
CEOTenure	779	8.44	6.00	2,596	7.31	5.00	1.12***	(3.48)
CFOTenure	820	5.01	5.00	2,806	4.84	4.00	0.17	(1.33)
FirmAge	963	32.99	25.00	3,754	26.56	21.00	6.43***	(10.16)
CEOAge	781	57.62	57.00	2,627	56.42	57.00	1.20***	(4.22)
CFOAge	820	52.50	52.00	2,799	51.75	52.00	0.75***	(2.94)

Table 9: Benefits and Costs of Exclusive Reliance on the Quantitative Assessment

In this table, we examine potential benefits and costs of always relying on the quantitative test. In Panel A, we report descriptive statistics for main variables in these tests by *AlwaysQuant* within *NoCushion* = 0 firm-years. Panel B reports results from estimating equation (5) for earnings response coefficients; Panel C reports results from estimating equation (6a) for examining reporting lag and equation (6b) for examining audit fees. *, **, and *** indicate statistical significance at the p-value < 0.10, 0.05, and 0.01 levels, respectively. Variable definitions appear in Appendix B.

Panel A: Descriptive Statistics by *AlwaysQuant*

	***AlwaysQuant* = 1**				***AlwaysQuant* = 0**				**T-Test of Means**	
	N	**Mean**	**SD**	**P50**	**N**	**Mean**	**SD**	**P50**	**Difference**	**T-stat**
$EACAR_{(-1,1)}$	266	0.01	0.07	0.01	778	0.01	0.08	0.01	0.00	(0.01)
UEEarnings	266	0.00	0.01	0.00	778	0.00	0.01	0.00	0.00	(1.65)
ReportingLag	793	56	14	56	3,143	58	14	57	-2.04***	(-3.68)
Fees (in millions)	803	5.048	5.968	2.976	3,194	3.567	4.585	1.985	1,480***	(7.66)

Table 9, continued

$$EACAR_{it} = \beta_0 + \beta_1 AlwaysQuant_{it} + \beta_2 UEEarnings_{it} + \boldsymbol{\beta_3 AlwaysQuant_{it} * UEEarnings_{it}} + \beta_4 MVE_{it} + \beta_5 Volatility_{it} + \beta_6 Beta_{it} + \beta_7 BTM_{it} + \beta_8 Loss_{it} + \Sigma\beta IndustryFE + \Sigma\beta YearFE + \varepsilon \quad (5)$$

Panel B: Potential Benefit – Earnings Response Coefficient	
	(1)
	$EACAR_{(-1,1)}$
AlwaysQuant	-0.002
	(-0.14)
UEEarnings	0.006***
	(4.05)
*AlwaysQuant * UEEarnings*	0.002
	(0.92)
Adjusted R^2	0.1275
Controls	Included
Fixed Effects	Industry & Year
Standard Error Clusters	by Firm
Obs. where *AlwaysQuant* = 1	262
Observations	1,034

$$ReportingLag_{it} = \beta_0 + \beta_1 \boldsymbol{AlwaysQuant_{it}} + \beta_2 Big4_{it} + \beta_3 LnAssets_{it} + \beta_4 LnSegments_{it} + \beta_5 Loss_{it\,t} + \beta_6 UEEarnings_{\ it} + \varepsilon \quad (6a)$$

$$LnFees_{it} = \beta_0 + \beta_1 \boldsymbol{AlwaysQuant_{it}} + \beta_2 Big4_{it} + \beta_3 LnAssets_{it} + \beta_4 LnSegments_{it} + \beta_5 ForeignSales_{it} + \beta_6 Inventory_{it} + \beta_7 Receivables_{it} + \beta_8 Leverage_{it} + \beta_9 MTB_{it} + \beta_{10} ROA_{it} + \beta_{11} Loss_{it} + \beta_{12} AuditOpinion_{it} + \beta_{13} ClientLength_{it} + \beta_{14} IPO_{it} + \beta_{15} SEO + \beta_{16} DebtIssue + \beta_{17} LitRisk + \varepsilon \quad (6b)$$

Panel C: Potential Costs – Reporting Lag and Audit Fees		
	(1)	(2)
ReportingCost =	*ReportingLag*	*LnFees*
AlwaysQuant	-0.004	0.005
	(-0.31)	(0.11)
Pseudo R^2	0.097	
Adjusted R^2		0.822
Controls	Included	Included
Fixed Effects	Industry & Year	Industry & Year
Standard Error Clusters	by Firm	by Firm
Obs. where *AlwaysQuant* = 1	793	803
Observations	3,935	3,944