SFAS 142, Conditional Conservatism, and Acquisition Profitability and Risk

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Abstract

We reexamine the relationship between accounting conservatism and acquisition profitability and risk, by comparing acquirers' acquisition profitability and the association between acquisitions and firm risk before vs. after the effective date of SFAS 142, June 30, 2001. Prior to SFAS 142, firms amortized goodwill. SFAS 142 eliminated periodic amortization of goodwill, replacing it with a fair value based test for impairment with write-offs if necessary, and required that a firm's goodwill be allocated to its reporting units. Subsequently, the frequency of goodwill impairments increased, suggesting that SFAS 142 resulted in an increase in conditional conservatism, as firms were now forced to recognize losses that previously would have been deferred as periodic expenses under the previous reporting regime. Based on both market and accounting measures, post-SFAS 142 we find a decrease in acquisition profitability compared to pre-142, and that firms undertaking acquisitions post-142 experienced a decrease in risk relative to acquisitions pre-142. Thus, our results suggest that conditional conservatism is associated with decreased risk taking but is not associated with increased acquisition profitability. More generally, our results call into question the benefits of conditional conservatism that have been documented in the literature.

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1. Introduction

In this paper, we reexamine the relationship between accounting conservatism and acquisition profitability and risk, by comparing acquirers' acquisition profitability and the association between acquisitions and firm risk before vs. after the effective date of Statement of Financial Accounting Standards No. 142, *Goodwill and Other Intangible Assets* (FASB 2001, hereafter "SFAS 142").[1] Prior to SFAS 142, firms amortized goodwill (over a period not to exceed 40 years), and relatively few firms recorded goodwill impairments (Roychowdhury and Watts, 2007).[2] SFAS 142, which became effective for all goodwill and intangible assets acquired after June 30, 2001, eliminated periodic amortization of goodwill, replacing it with a fair value based test for impairment with write-offs if necessary, and required that a firm's goodwill be allocated to its reporting units. Subsequently, the frequency of goodwill impairments increased (Li, Shroff, Venkataraman, and Zhang, 2011), suggesting that SFAS 142 resulted in an increase in conditional conservatism (i.e., timely loss recognition, or "TLR")), as firms were now forced to recognize losses that previously would have been deferred as periodic expenses under the previous reporting regime.[3] Based on both market and accounting measures, post-SFAS 142 we find a decrease in acquisition profitability compared to pre-142, and that firms undertaking acquisitions post-142 experienced a decrease in risk relative to acquisitions pre-142. Thus, our results suggest that conditional conservatism is associated with decreased risk taking but is not

[1] The provisions of SFAS 142 are now largely contained in Accounting Standards Codification (ASC) topics 350-20 and 350-30.
[2] The standard which SFAS 142 replaced (APB 17, *Intangible Assets*) required that acquired intangible assets (including goodwill acquired in a business combination) be systematically charged to income over the period estimated to be benefited, but established an arbitrary ceiling of 40 years.
[3] Watts (2003a, pg. 217) says that SFAS 142 is inconsistent with conservatism, but it is clear that he is discussing unconditional conservatism (due to the elimination of periodic amortization) and not conditional conservatism.

associated with increased acquisition profitability.

Our research addresses an important question, because the accounting literature has attributed numerous benefits to conditional conservatism. For example, Ball (2001) and Ball and Shivakumar (2005) argue that TLR reduces managers' willingness to make *ex-ante* negative NPV investments (such as empire building acquisitions), since the losses will have to be recognized in earnings with the resulting negative consequences for management bonuses, reputations, stock prices, etc. Moreover, TLR should make managers more likely to terminate investments that turn out *ex-post* to be negative, since the losses will be magnified if such projects are not halted. By contrast, if the losses can be deferred (such as by systematic amortization prior to SFAS 142), managers would be more willing to make bad investments in the first place and more inclined to let them continue, since their periodic impact will be smaller, more easily explainable, and might fall on future rather than on current management. Relatedly, Kravet (2014) focuses on the second moment of profitability, arguing that accounting conservatism induces managers to make less risky investments.[4]

Empirical tests of the benefits of conditional conservatism, however, suffer from potential endogeneity, correlated omitted variables, or reverse causality. These studies typically estimate TLR by the Basu (1997) "reverse" regression of annual firm-level earnings against contemporaneous annual firm-level stock returns, with a dummy variable and interaction for negative returns. The returns are a measure of the periodic news, with negative returns indicating bad news. As Basu (1997) discusses, conditional conservatism implies that the coefficient on the dummy variable (the "Basu" coefficient) is positive, and relatedly, that the R^2 in the reverse regression is greater for negative returns than for positive returns, since more contemporaneous bad news than good news is impounded in earnings. This is what researchers overwhelmingly

[4] Reduced risk is not necessarily a benefit, since firms might pass up risky, positive NPV projects.

find, with a larger Basu coefficient or greater bad news R^2 (compared to good news R^2) indicating greater TLR. Based on the hypothesis that TLR provides certain real benefits, researchers then correlate the Basu coefficient or the R^2 differential with the hypothesized benefits across firms. A positive correlation is taken as evidence of TLR's advantages.

For example, a number of papers examine the debt contracting benefits of TLR. Zhang (2008) finds a negative relation between firms' conservatism measures and their interest rates, indicating that more conservative borrowers benefit ex-ante by lower interest rates, and a positive relation between conservatism and covenant violations, indicating that their lenders benefit ex-post by more timely signaling of default risk.[5] Also using the Basu measure, Wittenberg-Moerman (2008) finds that timely loss recognition reduces the bid-ask spread on debt. Although they do not use Basu's measure, Ahmed, Billings, Morton, and Stanford-Harris (2002) find that borrowers with more conservative accounting receive better debt ratings. However, several authors have suggested that TLR and its documented benefits may both be the result of some unidentified firm-level factor, so that the benefit is not due to TLR itself, that is, TLR and the benefit are both endogenous outcomes of the firm's characteristics. For example, Watts (2003b) points out that the variables used in Ahmed et al.'s (2002) tests are jointly, not independently, determined. Without an identifying restriction or exogenous change in TLR, there is no way to know.

Francis and Martin (2010) and Kravet (2014) are most closely related to our study. Both papers measure TLR using the Basu coefficient. Francis and Martin (2010) find that firms with greater TLR have more profitable acquisitions (higher announcement returns and higher post-acquisition return on assets) than firms with less TLR, consistent with TLR's ex-ante benefits.

[5] In addition to the two Basu measures, Zhang also uses earnings skewness and cumulative non-operating accruals as conservatism measures. She shows that these two measures are correlated with the Basu measures, so all four appear to be capturing timely loss recognition.

They also find that acquirers with greater TLR have fewer post-acquisition divestitures, and if they do divest their acquisitions, they do it sooner than acquirers with lower TLR, consistent with TLR's ex-post benefits. Based on the arguments cited above, they attribute their results causally to the greater conditional conservatism. However, as they acknowledge, both TLR and acquisition success may be endogenously determined, possibly due to firms' better overall governance, and so they cannot rule out this possibility. Similarly, in his discussion of Francis and Martin (2010), Roychowdhury (2010) reiterates the point that Francis and Martin's evidence is insufficient to infer causality.

Kravet (2014) finds that acquirers with greater TLR have greater declines in risk (return volatility) after their acquisitions, consistent with TLR inducing less risky investments, and that this effect is driven by firms with accounting-based debt covenants. Like Francis and Martin (2010), Kravet (2014) acknowledges that his results might be due to unidentified factors associated with both conservatism and riskiness, and that he cannot infer causality. Due to the endogeneity problem, it is difficult to conclude whether TLR exhibits a causal link with the documented benefits, or is merely coincident with them.

To determine whether or not conditional conservatism actually improves acquisition success and reduces risk, we compare acquisitions before vs. after SFAS 142, which was an exogenous increase in TLR. Using both market and accounting measures, we find no evidence that acquisitions were more successful after SFAS 142 than before, but we do find that post-SFAS 142 acquisitions are associated with decreased risk, whereas pre-SFAS 142 acquisitions are not. For example, both mean and median 3 day acquisition announcement returns (Masulis, Wang, and Xie, 2007; Morck, Shleifer, and Vishny, 1990) are lower post-SFAS 142, as is the firm's return on assets subsequent to the acquisition. The percentages of acquisitions that were

divested are virtually identical pre-SFAS 142 and post-SFAS 142, and the time from acquisition until divestment increases after SFAS 142. Thus, we find neither ex-ante nor ex-post improvement in acquisition profitability from the increase in TLR. However, post-142 acquirers experience a decrease in return volatility after their acquisitions, whereas pre-142 acquirers do not. Based on our results, we conclude that the relation between timely loss recognition and acquisition profitability documented by Francis and Martin (2010) is likely due to an unidentified endogeneity; the relation between acquisitions, risk, and conservatism documented by Kravet (2014) is robust. More generally, our results call into question the benefits of TLR that have been documented in the literature.

The rest of the paper is organized as follows. Section 2 reviews the literature on SFAS 142 and the benefits of timely loss recognition. Section 3 discusses our data, hypotheses, and tests. Section 4 discusses our results. Section 5 concludes.

2 Literature Review

Our paper is at the intersection of two streams of research: [1] the effects of SFAS 142, and [2] the governance benefits of accounting conservatism in general and of timely loss recognition (i.e., conditional conservatism) in particular.

Prior to SFAS 142, the accounting for goodwill acquired through acquisitions was governed primarily by Accounting Principles Board Opinion No. 17, *Intangible Assets* ("APB 17"). APB 17 requires firms to systematically charge goodwill to income "over the period estimated to be benefited" but not greater than 40 years. Statement of Financial Accounting Standards No. 121, *Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to be Disposed Of* ("SFAS 121"), which became effective in 1995, addressed the

impairment of long-lived assets, including goodwill acquired in business combinations. SFAS 121 requires firms to review assets for impairment "whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable." In evaluating potential impairment, a firm must compare the sum of *undiscounted* cash flows to the carrying value of the asset.

SFAS 141, *Business Combinations*, eliminated pooling-of-interests accounting for mergers, and required the use of acquisition accounting for all business combinations, with acquired assets being adjusted to fair value at acquisition, with goodwill to be recorded for the difference between acquired assets and consideration given. SFAS 142, issued concurrently with SFAS 141, replaced annual goodwill amortization with annual impairment testing. As discussed above, by eliminating periodic amortization, SFAS 142 makes the accounting for goodwill less unconditionally conservative. However, compared to SFAS 121, the impairment testing standards of SFAS 142 impose a greater degree of conditional conservatism in two respects. First, SFAS 142 requires annual impairment testing, whereas under SFAS 121, firms were required to test for impairment only when circumstances warranted. Second, SFAS 142 imposes a stricter impairment test: firms must compare the fair value of the reporting units to which goodwill has been allocated to their carrying amounts, whereas under SFAS 121, firms compared the undiscounted cash flows to the carrying amount of goodwill.

Not surprisingly, research on SFAS 142 has focused on its effects on goodwill write-offs. Li et al. (2011) examine goodwill write-offs between 1996 and 2006, covering the pre-SFAS 142 and post-SFAS 142 periods. They find that after SFAS 142, the number of impairments increased, but the magnitude of impairment losses (scaled by acquiring firm MVE) became smaller. Analysts and the market react negatively to impairment announcements in both periods,

but less so in the post period, presumably due to the smaller write-off magnitudes. They also find that goodwill write-offs can be traced back to overvalued shares at the time of acquisition.

Ramanna (2008) and Ramanna and Watts (2012) argue that the flexibility in measuring goodwill (since it is a difficult-to-value intangible asset based on unverifiable fair value estimates that is tied to particular business units which themselves are not traded) allows firms to avoid goodwill write-offs altogether. Ramanna (2008) finds that firms' political support for SFAS 142 is positively related to their discretion in estimating and allocating goodwill; he interprets this evidence as firms' ability to avoid write-offs determining their support for the standard. Consistent with Ramanna's interpretation, Ramanna and Watts (2012) find that for firms with characteristics that suggest goodwill impairment (book-to-market ratios greater than 1.0 for two consecutive years), 69% do not record impairments, and they find some evidence that the non-impairment is related to managers' flexibility to avoid write-offs.[6]

If managers had complete flexibility to avoid write-offs, then SFAS 142 would not have caused an increase in timely loss recognition. We doubt this is the case for a number of reasons. First, while managers may have flexibility to delay the timing of a goodwill write-off, if the acquisition fails it is much more difficult to escape the write-off altogether. Li et al.'s (2011) evidence that the frequency of write-offs increased post-SFAS 142 is consistent with this view. The fact that write-offs are associated with significant negative market reactions (Bens, Heltzer, and Segal, 2011) indicates that these events contain news, and so are likely not stale events. Relatedly, Gu and Lev (2011) find that payment for an acquisition with overvalued shares predicts the acquisition's failure and subsequent write-off, which would not be the case if the

[6] Beatty and Weber (2006) also find evidence that managers use the discretion allowed under SFAS 142 in recording goodwill write-offs.

timing and amount of the write-off were arbitrary.[7] Second, even if SFAS 142 did give managers some flexibility to avoid goodwill write-offs, it is hard to imagine that SFAS 142 did not cause at least some increase in conditional conservatism, given the more stringent impairment testing requirements compared to SFAS 121 as described previously. Again, Li et al.'s (2011) evidence is consistent with this view and inconsistent with the alternative. *Third, Glaum et al (2015) find timely write-offs of goodwill in countries with strong enforcement systems; only where enforcement is weak are goodwill write-offs delayed. Since the U.S. has among the strictest enforcement of any country in the world, U.S. goodwill write-offs are likely to be timely.* Finally, acquisition announcement returns, our primary measure of acquisition profitability, factor in firms' anticipated behavior, and so capture any tendency firms have to avoid or delay write-offs. These factors all make it more likely that SFAS 142 led to an increase in conditional conservatism, compared to the previous reporting regime.

Ball (2001), Watts (2003a), and Ball and Shivakumar (2005) discuss the benefits of accounting conservatism, and conditional conservatism (i.e., timely loss recognition) in particular, as an important feature of firm governance that constrains bad managerial behavior. For example, Ball (2001) cites timely loss recognition as one of the two key features of an efficient external financial reporting system (the other being to incorporate only independently observed outcomes). As Ball points out, due to its negative effects on managers' income, bonuses, reputation, etc., timely recognition of losses (but not gains) mitigate managers' incentive to make ex-ante negative NPV investments that may give them personal utility but are

[7] In their examination of the relation between acquisition overpayment and subsequent goodwill write-off, Li et al. (2011) note that they cannot trace goodwill write-offs in the Compustat database to specific acquisitions obtained from the SDC database. Thus, they test whether goodwill impairment is related to average acquisition overpayment over the previous 5 years. Gu and Lev (2011) restrict their sample to firms with only a single acquisition during their sample period, increasing the confidence that the observed write-off relates to the acquisition observation. Both studies find a positive relation between overpayment and the likelihood of subsequent goodwill write-off.

bad for the firm (such as trophy acquisitions and empire building), and to quickly abandon projects that go bad ex-post. Thus, TLR improves corporate governance, compensation, and debt contracts in motivating and monitoring managers, thereby promoting *monitoring and allocative efficiency* (emphasis in the original).

A number of papers find empirical evidence consistent with this view. Ahmed et al. (2002) find that borrowers with more conservative accounting receive better debt ratings. Ahmed and Duellman (2007) find that the percentage of outside (inside) directors is positively (negatively) related to accounting conservatism, and Garcia Lara et al. (2009) find that firms with stronger corporate governance have greater conditional conservatism. Zhang (2008) finds a negative relation between firms' conservatism measures and their interest rates, indicating that more conservative borrowers benefit ex-ante via lower interest rates, and a positive relation between conservatism and covenant violations, indicating that their lenders benefit ex-post by more timely signaling of default risk. Wittenberg-Moerman (2008) finds that timely loss recognition reduces the bid-ask spread on debt.

Francis and Martin (2010) is closely related to our paper.. Motivated by Ball (2001), Watts (2003a), and Ball and Shivakumar (2005), Francis and Martin examine the effects of timely loss recognition in the context of acquisitions. Using Basu's (1997) conservatism measure and evaluating acquisition profitability by both bidder announcement returns (Masulis, Wang, and Xie, 2007; Morck, Shleifer, and Vishny, 1990) and post-acquisition accounting performance, they find that more conservative firms make more profitable acquisitions, are less likely to divest their acquisitions, and if they do divest, they do it more quickly than less conservative acquirers. Thus, Francis and Martin (2010) find both ex-ante and ex-post benefits of accounting conservatism.

Also closely related to our study is Kravet (2014), who derives a risk based benefit of accounting conservatism. He argues that more conservative accounting induces managers to make less risky investments, in order to avoid suffering the consequences of the subsequent write-offs. Consistent with his predictions, he finds that firms with more conservative accounting show a decrease in risk (return volatility) after an acquisition. Moreover, he finds that acquisitions' risk reduction effect is concentrated in firms with accounting-based debt covenants, consistent with conservative firms avoiding risky investments in order to mitigate the potential for loss-induced covenant violations.

Several authors have noted that papers empirically documenting the benefits of accounting conservatism suffer from potential endogeneity, correlated omitted variables, or reverse causality; that is, TLR and the documented benefit may both be the result of some unidentified firm-level factor, so the benefit is not necessarily due to TLR itself. In other words, TLR and the observed benefit are both endogenous outcomes of the firm's characteristics. Without an identifying restriction or exogenous change in TLR, it is difficult to establish a direct link between TLR and firm-level outcomes. Francis and Martin (2010) acknowledge that both TLR and acquisition success may be endogenously determined, due to firms' better overall governance, and that they cannot rule out this possibility. Similarly, in his discussion of Francis and Martin (2010), Roychowdhury (2010) reiterates the point that Francis and Martin's evidence is insufficient to infer causality, and Kravet (2014) acknowledges that he cannot infer causality either. Thus, due to the endogeneity problem, it is difficult to conclude whether TLR directly leads to the documented benefits, or is merely coincident with them. To address this problem, we compare acquisition profitability before vs. after SFAS 142, which, as discussed above, likely represented an exogenous increase in TLR.

3 Data, Hypotheses, and Tests

We obtain our sample of acquisitions from the Thomson Reuters Securities Data Company (SDC) Platinum database. We first select all transactions with an effective date (SDC item DE) from January 1, 1992 through December 31, 2010 and in which the acquiring firm is publicly traded. Similar to Francis and Martin (2010) and Gu and Lev (2011), we exclude transactions where the value of the transaction (SDC item VAL) is missing, transactions where the percentage of the target firm's outstanding shares acquired is less than 90 percent, transactions in which the transaction value is less than 1 percent or greater than 100 percent of the acquiring firm's market value at the beginning of the fiscal year. Finally, we require firms to have relevant data in the Compustat and CRSP databases.

Because our analyses investigate the change in goodwill accounting created by SFAS 141 and SFAS 142, we also control for the form of the acquisition, pooling vs purchase. We do this in two ways. First, we separately identify pre-SFAS 141/142 transactions in which pooling-of-interests accounting was used. Prior to the elimination of pooling-of-interests accounting for acquisitions under FAS 141, APB 17 required an acquisition to be made substantially all in equity in order to qualify for pooling-of-interests accounting and thus avoid recording goodwill and revaluing acquired assets and liabilities. To assess if these types of transactions are systematically different from purchase accounting transactions, we perform our main empirical analyses both including and excluding pre-SFAS 141 transactions in which pooling-of-interests accounting was used. Second, we define post-142 stock-based acquisitions as “as-if pooling”, since these would have qualified for pooling in the pre-142 period, and we perform our main empirical analyses both including and excluding these “as-if pooling” transactions.

Panel A of Table 1 presents a decomposition of the transactions meeting the sample selection criteria by year. The number of transactions peaks in the late 1990s. There are a total of 12,735 transactions accounted for using the purchase method, and a total of 1,298 transactions accounted for using the pooling method. Of the 12,735 transactions accounted for under the purchase method, 6,406 occur before SFAS 142 becomes effect on July 30, 2001, while 6,329 occur after SFAS 142 becomes effective.

In Panel B, we examine the break-down of acquisitions accounted for under the pooling method in the pre-SFAS 142 reporting regime and the post-SFAS 142 acquisitions that were financed entirely by stock and thus would have been eligible for pooling-of-interests under the pre-SFAS 142 regime. Of the 7,704 acquisitions in the pre-SFAS 142 period, 1,298 (16.8%) were accounted for under the pooling-of-interests method. In contrast, in the post-SFAS 142 period, only 417 of 6,329 acquisitions, or 6.6%, were made using 100% equity and thus would have qualified for pooling-of-interests accounting under the pre-SFAS 142 regime. Thus, it appears that the likelihood of a buyer financing an acquisition using stock goes down after the beneficial accounting treatment under pooling-of-interests is no longer available.

Our main tests reexamine the hypotheses that higher accounting conservatism leads to higher acquisition profitability and decreased firm riskiness. If these hypotheses are true, and if the revised goodwill accounting under SFAS 142 is associated with greater conditional conservatism, then we should expect to see, on average, greater acquisition profitability and greater post-acquisition reductions in risk after SFAS 142 becomes effective than before. Alternatively, if greater conditional conservatism exhibits no relationship with acquisition profitability or risk (or is associated with less acquisition profitability and increased post-acquisition riskiness), then we should see no increase in average acquisition profitability or no

decrease in post-acquisition firm riskiness after the passage of SFAS 142. As these are empirical questions, we hypothesize in the null form:

Hypothesis #1 — There is no relationship between conditional accounting conservatism and acquisition profitability.

Hypothesis #2 — There is no relationship between conditional accounting conservatism and the change in firm risk before vs after an acquisition.

We also examine the relationship between SFAS 142 and acquisition overpayment, as Gu and Lev (2011) show that overpayment of acquisitions is strongly associated with subsequent goodwill impairment. If greater conditional conservatism is associated with more profitable acquisitions, then we should expect to see less overpayment for acquisitions after FAS 142 becomes effective than before. Again, we hypothesize in the null form.

Hypothesis #3 — There is no relationship between conditional accounting conservatism and the likelihood of overpayment.

To test our hypotheses, we evaluate various specifications of the following regression equation:

$$\begin{aligned}\text{Acquisition profitability}_i \text{ or Overpayment}_i \text{ or Riskiness}_i = \\ \alpha + \beta_1(\text{Post SFAS 142}) + \beta_2(\text{Leverage}_i) + \beta_3(\text{Log assets}_i) \\ + \beta_4(\text{Market-to-book}_i) + \beta_5(\text{Litigation}_i) + \varepsilon_i\end{aligned} \quad [1]$$

Post SFAS 142 is an indicator variable taking a value of 1 if the acquisition occurred after SFAS 142 became effective. Our control variables are consistent with Francis and Martin (2010). All control variables are measured at the beginning of the fiscal year in which the acquisition occurs. Leverage$_i$ is the acquiring firm's total debt scaled by total assets. Log assets$_i$ is the natural logarithm of the acquiring firm's total assets. Market-to-book$_i$ is the firm's market value divided by the book value of equity. Litigation$_i$ is an indicator variable with a value equal to 1 if the firm is in a high-litigation industry, 0 otherwise.[8]

We use a number different measures of acquisition profitability as our dependent variable:

Announcement return — Three day cumulative return centered on the date of the acquisition announcement. We measure both raw returns and abnormal returns, relative to the CRSP market value weighted index.

Operating performance — We use three measures of operating performance: net income, income before extraordinary items, and cash flow from operations. Each operating measure is scaled by beginning total assets. Each operating performance metric is measured as the change in the mean for the 3 years after the acquisition over the mean for the three years prior to the acquisition.

Subsequent divestiture — An indicator variable with a value of 1 if the firm made a divestiture of its acquisition within seven years after the acquisition date. Consistent with Francis and Martin (2010), we obtain divestitures from the SDC database and merge it with the

[8] Consistent with Francis and Martin (2010), we define high-litigation industries as the following SIC codes: [2833, 2836], [8731, 8734], [3570, 3577], [7370, 7374], [3600, 3674], [5200,5961].

acquisitions data.[9] We note an acquisition as divested if the divested firm has the same 4 digit SIC as the acquired firm. For acquisitions that resulted in a divestiture, we also analyze the length of time (in months) from the acquisition date to the divestiture date.

Overpayment — Consistent with Gu and Lev (2011) we measure the likelihood of overpayment based on the amount of goodwill recorded with the acquisition. We measure this as the change in goodwill in the year of the acquisition, scaled by total assets.

4 Results

Before discussing our main results, it is important to document the increase in conditional conservatism induced by SFAS 142. Despite the intent of the rule change, Ramanna (2008) and Ramanna and Watts (2012) argue that the discretion in estimating and allocating goodwill may actually enable firms with impaired goodwill to delay or perhaps even avoid write-offs, which would reduce conditional conservatism, and Li and Sloan (2014) find evidence of delayed goodwill write-offs under SFAS 142. By Contrast, Badia et al (2015) find that even when firms have such discretion, they report conditionally conservative fair valuations.

If conditional conservatism increased under SFAS 142, we would expect that measures of acquisition overpayment, such as announcement returns, to be strong predictors of subsequent write-offs. Pre- SFAS 142, by contrast, if periodic amortization was a "substitute" for write-offs, firms that engaged in poor acquisitions may have been able to avoid write-offs, so measures of overpayment would not necessarily indicate future write-offs.

To examine the change in conditional conservatism under 142, we follow Gu and Lev (2011, Table 7) and regress write-offs against measures of overpayment (plus controls), in both

[9] Because this procedure requires us to look forward seven years, we use a sample period of [1995, 2007] for the subsequent divestiture analyses, rather than the full sample period of [1992, 2010].

the pre-142 and post-142 periods. We do this in two ways. First, we examine whether short-window returns around the acquisition announcement date are more likely to be related to a future write-off of goodwill in the post-SFAS 142 period than in the pre-SFAS 142 period.[10] Second, we test the more general relationship between returns and goodwill write-offs by examining, for all acquirers in our sample, all firm-years during the sample period (i.e., regardless of whether or not they made an acquisition in that year), and assess whether returns during the fiscal year are more likely to predict an announced write-off of goodwill that accompanies the annual earnings announcement, in the post-SFAS 142 period than in the pre-SFAS 142 period.[11]

Table 2 reports the results. In Panel A, we perform a logistic regression of future write-off of goodwill on the short window returns around the acquisition announcement date and controls. We perform this regression separately for acquisitions in the pre-SFAS 142 period and post-SFAS 142 period. Columns 1 and 2 use raw returns, while columns 3 and 4 use abnormal returns (relative to the CRSP market-valued weighted index). For both return measures, we find that the short-window returns around the acquisition announcement are significantly negatively related to the likelihood of a future write-off of goodwill after SFAS 142 becomes effective, but are insignificantly related to the likelihood of goodwill write-off before SFAS 142 becomes effective, though the differences in coefficient magnitudes are not significant at conventional levels.

In Panel B of Table 2, we obtain all firm-year data in our sample period for all firms that

[10] Like Gu and Lev, we can only conduct this regression for firms that conduct a single acquisition, because for firms with multiple acquisitions, we cannot link the goodwill write-off to a specific acquisition.
[11] In their study of goodwill impairments, Bens, Heltzer, and Segal (2011) note that goodwill impairments were announced concurrently with the year-end earnings announcement in over 89% of their sample, so it is most likely that the earnings announcement date represents the first date in which the market formally learns of the goodwill impairment. Nevertheless, we also perform this test using lag returns as well, explained shortly.

had an acquisition in our sample. We then perform, separately for firm-year observations in the pre-SFAS 142 period and post-SFAS 142 period, logistic regressions of an indicator variable for goodwill impairment in that year on returns during the fiscal period and controls. Again, we use both raw returns and abnormal returns. The results indicate that returns during the fiscal period are significantly and negatively related to the likelihood of a goodwill write-off that year, however, this relationship is stronger in both significance and magnitude in the post-SFAS 142 period, and the difference in coefficients is statistically significant at the 1% level when using abnormal return measures.

In their study of goodwill impairments, Bens et al. (2011) find that over 89% of their sample goodwill write-offs were announced with the annual earnings announcement. Thus, it is most likely the case that the market officially learns of the write-off after the period in which we measure our returns, supporting the idea that returns better predict write-offs in the post-SFAS 142 period. Nevertheless, to ensure that our measures capture the predictive ability of returns with regard to future goodwill write-offs, in Panel C we repeat the analyses in Panel B using lag raw and adjusted returns. The results are similar. Lag returns are significantly related to the likelihood of a future goodwill write-off, but more so in the post SFAS-142 period.

In Table 3, we examine the frequency and magnitude of goodwill impairments in the pre-SFAS 142 period and post-SFAS 142 period. Consistent with Li et al (2011, Tables 1 and 2), we find a large increase in the incidence of goodwill write-offs from the pre-142 to the post-142 period, 2.1% to 10.0%, but the average write-off (scaled by total assets) decreased from 10% to 6.75%. These results reflect the changes caused by 142: SFAS 142 reduced the write-off trigger from undiscounted cash flows to fair value and likely increased auditor scrutiny, since auditors could no longer rely on periodic amortization to reduce impaired goodwill. Thus, pre-142 write-

offs would have required more extreme impairment. These changes are consistent with increasing conditional conservatism.

Table 4 Panel A reports descriptive statistics about our acquisition sample. Since SFAS 142 eliminated pooling-of-interests acquisitions, in order to compare the pre-SFAS 142 and post-SFAS 142 periods on an equivalent basis, Panel A includes only purchase acquisitions; Panel B includes all acquisitions. Panel C compares pre-SFAS 142 purchases based on whether the acquisition was accounted for using purchase vs. pooling-of-interests. Panel D includes all acquisitions in the post-SFAS 142 period, with stock-based acquisitions designated as "as-if pooling" compared to acquisitions which were not stock-based. SFAS 142 eliminated pooling acquisitions, but these are acquisitions that likely would have been accounted for as pooling under the old regime. By designating them as "as-if pooling", we can compare acquisitions before vs after 142, holding the acquisition method constant.

Average announcement returns were lower after SFAS 142, and the percentage of "bad" acquisitions (those with negative announcement returns) was virtually unchanged. Post-acquisition accounting performance declined after SFAS 142, as the probability of divestiture did not change, and the time to divestiture increased. The results are extremely similar whether only purchase acquisitions are included (Panel A) or all acquisitions (Panel B). If the increase in timely loss recognition due to SFAS 142 improved acquisition performance, we would expect to see higher announcement returns and accounting profitability, fewer divestitures, and less time to divestment if it occurs.

When examining acquisitions in the pre-SFAS 142 period in Panel C, we find that acquisitions accounted for under the purchase method, generally are better received by the market at announcement, and perform better subsequent to the acquisition. In Panel D, we

examine acquisitions after SFAS 142 and compare stock-based acquisitions (which would have qualified for pooling-of-interests accounting under the previous regime) against non-stock-based acquisitions. Interestingly, we find that while the "as-if-pooling" acquisitions continue to have lower market returns in the post-SFAS 142 period, they tend to have better operating performance subsequent to the acquisition.

In the pre-SFAS 142 period, return volatility (measured using either raw returns or abnormal returns) increased from before to after an acquisition, but in the post-SFAS 142 period it decreased, and the difference in difference is significantly negative. Again, the results are similar whether only purchase acquisitions are included (Panel A) or all acquisitions (Panel B). This is what we would expect to see if the increase in timely loss recognition due to SFAS 142 reduced firm risk taking via acquisitions.

Table 5 reports the results of OLS regressions of the following dependent variables against a Post SFAS 142 dummy and controls for leverage, size, the market-to-book ratio, and the firm's litigation probability: 3 day acquisition announcement returns (both raw returns and cumulative abnormal returns based on the CRSP value-weighted market index), the ratio of acquisition year change in goodwill to assets, net income to assets, whether or not the acquisition was divested within seven years (estimated as a logistic regression), and the time in months from acquisition until divestiture. Like Table 2, Panel A includes only purchase acquisitions, and Panel B includes all acquisitions.

Panel A shows that announcement returns were insignificantly different between the two periods (and lower at the 10% level post-SFAS 142 based on CAR), while post acquisition accounting performance was significantly worse after SFAS 142. There is no difference in the probability of divestiture, but for acquisitions that were divested, the time until divestiture

increased after SFAS 142. Results are similar when all pre-SFAS 142 acquisitions, both purchase and pooling, are included in Panel B. Thus, we find no evidence that either ex-ante or ex-post acquisition success improved after SFAS-142. The key message from these results is that contrary to Francis and Martin (2010), the increase in timely loss recognition did not improve acquirer's acquisition performance; if anything, acquisition performance worsened.

Panel C examines the relationship between acquisition riskiness (measured as the change in volatility before vs. after the acquisition) and accounting conservatism, as well as the impact of leverage on the relationship. We find a negative main effect on the Post SFAS 142 coefficient, suggesting that acquisition riskiness declined in the post SFAS period. This is consistent with the univariate statsitcs shown earlier and with Kravet's (2014) finding that lower acquisition riskiness is associated with increased accounting conservatism. Unlike Kravet (2014), however, we find that the interaction between Leverage and POST-SFAS 142 loads significantly positive, suggesting that leverage mitigates the negative effect of conservatism on acquisition riskiness.[12]

5 Conclusion

We compare acquisition profitability and the relation between acquisitions and firm risk before vs after the implementation of SFAS 142. SFAS 142 eliminated periodic amortization of goodwill and replaced it with a fair value based test for impairment with write-offs if necessary. Subsequently, the frequency of goodwill impairments increased, suggesting that SFAS 142 resulted in an increase in conditional conservatism (timely loss recognition), as firms were now

[12] The different results could result from differences in sample selection. In Kravet's (2014) sample of acquisitions, both the buyer and target must be publicly traded, whereas we include acquisitions of private companies by publicly traded acquirers. We also estimated the volatility model in Panel C interacting all variables with POST SFAS 142 (i.e., effectively estimating two separate regressions for the PRE and POST periods), with similar results.

forced to recognize losses that previously would have been deferred as periodic expenses under the previous reporting regime. Our research addresses an important question, because the accounting literature has attributed numerous benefits to timely loss recognition, such as reducing managers' willingness to make bad ex-ante or ex-post investments and inducing managers to make less risky investments. Based on both market and accounting measures, we find a decrease in acquisition profitability after SFAS 142, suggesting that timely loss recognition is not associated with increased acquisition profitability. However, we find that acquisitions are associated with reductions in firm riskiness after SFAS 142, but not before, suggesting that timely loss recognition is associated with less risky investments. Thus, we conclude that the relation between timely loss recognition and acquisition profitability documented by Francis and Martin (2010) is likely due to an unidentified endogeneity. By contrast, the relation between acquisitions, risk, and conservatism documented by Kravet (2014) is robust. More generally, our results call into question the benefits of conservatism that have been widely documented in the literature.

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Table 1 • Acquisitions decomposition

Panel A • Acquisitions by year

The sample consists of 14,033 mergers and acquisitions taking place from January 1, 1992 through December 31, 2010. This table provides the distribution of acquisitions by year.

	Method of accounting		
Year	Purchase	Pooling	Total
1992	245	55	300
1993	342	70	412
1994	467	102	569
1995	530	149	679
1996	738	148	886
1997	1,005	178	1,183
1998	1,149	265	1,414
1999	794	191	985
2000	796	93	889
2001	673	47	720
2002	644	0	644
2003	618	0	618
2004	760	0	760
2005	808	0	808
2006	888	0	888
2007	802	0	802
2008	577	0	577
2009	324	0	324
2010	575	0	575
	12,735	1,298	14,033

SFAS 142 effective date: July 30, 2001

	Method of accounting		
Year	Purchase	Pooling	Total
Pre SFAS 142	6,406	1,298	7,704
Post SFAS 142	6,329	0	6,329
	12,735	1,298	14,033

Table 1 • Acquisitions decomposition (continued)

Panel B • Stock-based acquisitions

	Purchase method	Pooling method (pre-SFAS 142) or 100% equity (post-SFAS 142)	
Pre-SFAS 142	6,406	1,298	7,704
Post-SFAS 142	5,912	417	6,329
	12,318	1,715	14,033

Table 2 • Relationship between returns and subsequent goodwill write-offs

In Panel A, we examine the relationship between short-window announcement returns at the time of acquisition announcement with subsequent goodwill write-offs. In Panel B (C), we obtain all firm-years for all firms which made an acquisition in our sample and examine the relationship between fiscal year returns (lag returns) with the likelihood of goodwill write off that year.

Panel A • Acquisition announcement returns and subsequent goodwill write-offs

	Returns measure			
	Raw returns		Abnormal returns	
	SFAS 142 regime		SFAS 142 regime	
	Pre	Post	Pre	Post
Intercept	-1.947 •••	-0.407	-1.957 •••	-0.391
	-6.69	-1.35	-6.72	-1.30
Return	-0.955	-1.937 •		
	-0.99	-1.92		
Abnormal return			-0.755	-2.118 ••
			-0.76	-2.00
Leverage	0.217	0.041	0.216	0.031
	0.55	0.17	0.55	0.13
Log Assets	0.043	0.009	0.044	0.007
	0.88	0.19	0.91	0.15
MB	-0.001	0.005	-0.001	0.005
	-0.69	0.95	-0.69	0.95
High litigation	0.840 •••	-0.104	0.838 •••	-0.113
	4.98	-0.61	4.97	-0.66
n	1,142	770	1,142	770
Pseudo R2	2.2%	1.1%	2.2%	1.1%

Table 2 • Relationship between returns and subsequent goodwill write-offs (continued)

Panel B • Fiscal period returns and goodwill write-offs

	Returns measure			
	Raw returns		Abnormal returns	
	SFAS 142 regime		SFAS 142 regime	
	Pre	Post	Pre	Post
Intercept	-5.720 •••	-2.572 •••	-5.709 •••	-2.574 •••
	-29.56	-29.36	-29.75	-29.38
Return	-1.135 •••	-1.457 •••		
	-10.05	-26.24		
Abnormal return			-0.506 •••	-1.317 •••
			-5.40	-21.38
Leverage	0.432 ••	0.579 •••	0.555 •••	0.656 •••
	2.12	7.10	2.74	8.04
Log Assets	0.185 •••	0.030 •••	0.167 •••	0.020 •
	7.30	2.70	6.66	1.80
MB	0.001 ••	0.000	0.001 •	0.000
	1.97	0.79	1.81	0.60
High litigation	1.136 •••	0.046	1.214 •••	0.077
	10.80	0.94	11.73	1.59
n	26,712	28,271	26,712	28,271
Pseudo R2	1.1%	3.5%	0.7%	2.4%

Table 2 • Relationship between returns and subsequent goodwill write-offs (continued)

Panel C • Lag fiscal period returns and goodwill write-offs

	Returns measure			
	Raw returns		Abnormal returns	
	SFAS 142 regime		SFAS 142 regime	
	Pre	Post	Pre	Post
Intercept	-5.527 •••	-2.433 •••	-5.548 •••	-2.440 •••
	-28.37	-28.19	-28.41	-28.21
Lag Return	-0.880 •••	-0.951 •••		
	-8.01	-19.28		
Lag Abnormal return			-0.560 •••	-1.033 •••
			-5.69	-18.45
Leverage	0.428 ••	0.713 •••	0.478 ••	0.728 •••
	2.09	8.76	2.34	8.96
Log Assets	0.165 •••	0.013	0.151 •••	0.008
	6.46	1.19	5.92	0.73
MB	0.001 •	0.000	0.001 •	0.000
	1.65	-0.04	1.65	0.13
High litigation	1.233 •••	0.069	1.252 •••	0.074
	11.77	1.44	12.01	1.55
n	26,712	28,271	26,712	28,271
Pseudo R2	1.0%	2.1%	0.8%	2.0%

Table 3 • Frequency and magnitude of goodwill write-offs pre- and post-SFAS 142

This table tabulates the frequency and magnitude of goodwill write-offs before and after SFAS 142.

	Mean		
	[1995, 2001]	[2002, 2013]	Difference
Number of write-offs (total)	445	2,830	n/a
Incidence of write-off	0.0207	0.1001	•••
Magnitude of write off (scaled by assets)	-0.1004	-0.0675	•••

Table 4 • Descriptive Statistics

The sample consists of 14,033 mergers and acquisitions taking place from January 1, 1992 through December 31, 2010. This table provides descriptive statistics for the full sample, broken down into the pre- and post-SFAS 142 periods. Panel A includes only those acquisitions accounted for using the purchase method, while Panel B includes both purchase and pooling acquisitions. Panel C compares purchase vs. pooling acquisitions in the Pre-SFAS 142 period.

Panel A • Acquisitions using purchase accounting only

	Mean			Median		
	Pre-SFAS 142	Post-SFAS 142	Difference	Pre-SFAS 142	Post-SFAS 142	Difference
Announcement returns						
Announcement 3-day CAR	0.013	0.008	•••	0.006	0.004	••
Announcement 3-day raw return	0.014	0.008	•••	0.008	0.006	•••
Positive announcement 3-day CAR	0.578	0.561	•	n/a	n/a	
Positive announcement 3-day raw return	0.558	0.550		n/a	n/a	
Goodwill recognized						
Acquisition year Δ Goodwill / assets	0.086	0.106	•••	0.000	0.032	•••
Operating performance 3 year average before → after acquisition year						
Net income / Assets	0.017	0.001	•••	−0.013	−0.007	•••
Income before extraordinary / Assets	0.021	0.000	•••	−0.013	−0.008	•••
Operating cash flow / Assets	0.014	−0.007	•••	−0.011	−0.008	•••
Divestiture						
Divested within 7 years	0.248	0.251		n/a	n/a	
Time to divest (log months)	2.735	2.991	•••	2.990	3.237	•••
Change in volatility						
σ After − σ Before (raw returns)	0.0033	-0.0003	•••	0.0019	-0.0014	•••
σ After − σ Before (abnormal returns)	0.0031	-0.0012	•••	0.0018	-0.0022	•••

Table 4 • Descriptive Statistics (continued)

Panel B • All acquisitions (both purchase and pooling accounting)

	Mean			Median		
	Pre-SFAS 142	Post-SFAS 142	Difference	Pre-SFAS 142	Post-SFAS 142	Difference
Announcement returns						
Announcement 3-day CAR	0.011	0.008	•••	0.005	0.004	
Announcement 3-day raw return	0.013	0.008	•••	0.006	0.006	
Positive announcement 3-day CAR	0.561	0.561	•	n/a	n/a	
Positive announcement 3-day raw return	0.544	0.550		n/a	n/a	
Operating performance 3 year average before → after acquisition year						
Net income / Assets	0.012	0.001	••	−0.009	−0.007	•••
Income before extraordinary / Assets	0.016	0.000	•••	−0.010	−0.007	•••
Operating cash flow / Assets	0.012	−0.007	•••	−0.009	−0.008	•••
Divestiture						
Divested within 7 years	0.244	0.251		n/a	n/a	
Time to divest (log months)	2.804	2.991	•••	3.074	3.237	•••
Change in volatility						
σ After − σ Before (raw returns)	0.0034	-0.0003	•••	0.0021	-0.0014	•••
σ After − σ Before (abnormal returns)	0.0032	-0.0012	•••	0.0020	-0.0022	•••

Table 4 • Descriptive Statistics (continued)

Panel C • Purchase vs. pooling acquisitions (pre-SFAS 142 period)

	Mean			Median		
	Purchase	Pooling	Difference	Purchase	Pooling	Difference
Announcement returns						
Announcement 3-day CAR	0.013	0.005	•••	0.006	−0.003	•••
Announcement 3-day raw return	0.014	0.006	•••	0.008	0.000	•••
Positive announcement 3-day CAR	0.578	0.481	•••	n/a	n/a	
Positive announcement 3-day raw return	0.558	0.472	•••	n/a	n/a	
Operating performance 3 year average before → after acquisition year						
Net income / Assets	0.017	−0.012	•••	−0.013	−0.002	•••
Income before extraordinary / Assets	0.021	−0.011	•••	−0.013	−0.002	•••
Operating cash flow / Assets	0.014	0.002	•	−0.011	−0.001	
Divestiture						
Divested within 7 years	0.248	0.219	•	n/a	n/a	
Time to divest (log months)	2.735	3.221	•••	2.990	3.506	
Change in volatility						
σ After − σ Before (raw returns)	0.0033	0.0039		0.0019	0.0029	•••
σ After − σ Before (abnormal returns)	0.0031	0.0035		0.0018	0.0025	•

Table 4 • Descriptive Statistics (continued)

Panel D • Purchase vs. as-if-pooling acquisitions (post-SFAS 142 period)

	Mean			Median		
	Purchase	Pooling	Difference	Purchase	Pooling	Difference
Announcement returns						
Announcement 3-day CAR	0.009	−0.013	•••	0.006	−0.013	•••
Announcement 3-day raw return	0.010	−0.013	•••	0.007	−0.012	•••
Positive announcement 3-day CAR	0.574	0.374	•••	n/a	n/a	
Positive announcement 3-day raw return	0.563	0.374	•••	n/a	n/a	
Operating performance 3 year average before → after acquisition year						
Net income / Assets	−0.003	0.061	•••	−0.008	−0.001	•••
Income before extraordinary / Assets	−0.004	0.060	•••	−0.008	−0.002	•••
Operating cash flow / Assets	−0.009	0.023	•••	−0.008	−0.001	•
Divestiture						
Divested within 7 years	0.251	0.258		n/a	n/a	
Time to divest (log months)	2.971	3.234	•	3.223	3.412	•••
Change in volatility						
σ After − σ Before (raw returns)	0.0000	−0.0045	•••	−0.0012	−0.0054	•••
σ After − σ Before (abnormal returns)	−0.0010	−0.0047	•••	−0.0020	−0.0058	•••

Table 5 • Multivariate analyses of acquisition profitability pre- and post-SFAS 142

The sample consists of 14,033 mergers and acquisitions taking place from January 1, 1992 through December 31, 2010. This table shows multivariate regressions of performance measures on an indicator for post-FAS 142 and controls. Panel A includes only those acquisitions accounted for using the purchase method, while Panel B includes both purchase and pooling acquisitions.

Panel A • Acquisitions using purchase accounting

	Acquisitions using purchase accounting							
	Announcement return		Goodwill	Operating performance			Divestiture	
	3-day CAR	3-day raw return	Δ Goodwill	Net income	Operating income	CFO	Divestiture	Time to divestiture
Intercept	0.043 •••	0.045 •••	0.282 •••	0.066 •••	0.075 •••	0.075 •••	3.036 •••	3.330 •••
	17.92	18.11	37.18	6.32	7.07	9.99	26.10	26.51
POST SFAS 142	-0.001	-0.002 •	0.038 •••	-0.013 •••	-0.018 •••	-0.016 •••	0.054	0.256 •••
	-0.62	-1.70	10.28	-2.59	-3.48	-4.26	1.04	4.59
Leverage	0.007 •••	0.009 •••	-0.036 •••	0.032 •••	0.025 ••	0.012	-1.679 •••	-0.661 •••
	2.80	3.25	-4.22	2.75	2.12	1.40	-13.72	-4.97
Log assets	-0.005 •••	-0.005 •••	-0.030 •••	-0.011 •••	-0.012 •••	-0.012 •••	-0.218 •••	-0.054 •••
	-14.30	-14.08	-27.93	-7.84	-8.11	-10.68	-14.25	-3.38
Market-to-book	0.000	0.000	0.000	0.000	0.000	0.000	0.002	-0.004
	-0.50	0.39	0.79	0.82	0.86	0.73	1.49	-1.62
Litigation	-0.007 •••	-0.008 •••	0.015 •••	0.075 •••	0.079 •••	0.044 •••	-0.042	0.111
	-5.12	-5.20	3.40	12.52	12.94	10.28	-0.65	1.54
R-squared	1.8%	1.8%	7.4%	2.3%	2.6%	2.8%	5.7%	3.4%

Table 5 • Multivariate analyses of acquisition profitability pre- and post-SFAS 142 (continued)

Panel B • Acquisitions using purchase and pooling accounting

	Acquisitions using purchase and pooling accounting							
	Announcement return		Goodwill	Operating performance			Divestiture	
	3-day CAR	3-day raw return	Δ Goodwill	Net income	Operating income	CFO	Divestiture	Time to divestiture
Intercept	0.045 •••	0.048 •••	n/a	0.059 •••	0.067 •••	0.075 •••	3.078 •••	3.320 •••
	19.86	20.20		5.95	6.66	10.11	27.70	28.27
POST SFAS 142	0.000	-0.001		-0.009 •	-0.013 •••	-0.012 •••	0.046	0.188 •••
	0.12	-1.04		-1.87	-2.70	-3.34	0.93	3.58
Leverage	0.009 •••	0.010 •••		0.035 •••	0.029 •••	0.021 ••	-1.669 •••	-0.757 •••
	3.36	3.79		3.12	2.57	2.52	-14.25	-6.05
Log assets	-0.005 •••	-0.006 •••		-0.011 •••	-0.011 •••	-0.012 •••	-0.222 •••	-0.040 •••
	-16.98	-16.87		-7.97	-8.26	-11.41	-15.42	-2.74
Market-to-book	0.000	0.000		0.000	0.000	0.000	0.002	-0.004
	-0.47	0.42		0.83	0.87	0.71	1.47	-1.45
Litigation	-0.006 •••	-0.006 •••		0.069 •••	0.072 •••	0.040 •••	-0.072	0.112 •
	-4.44	-4.48		12.14	12.60	9.69	-1.16	1.66
R-squared	2.1%	2.2%		2.1%	2.3%	2.6%	5.6%	3.2%

Table 5 • Multivariate analyses of acquisition profitability pre- and post-SFAS 142 (continued)

Panel C • Acquisitions and acquisition risk

	Acquisitions using purchase accounting		Acquisitions using purchase and pooling accounting	
	Δ Return σ	Δ Abnormal Return σ	Δ Return σ	Δ Abnormal Return σ
Intercept	0.003 •••	0.002 •••	0.003 •••	0.002 •••
	4.58	4.25	5.19	4.81
POST FAS 142	-0.004 •••	-0.005 •••	-0.005 •••	-0.005 •••
	-10.49	-12.94	-11.92	-14.42
Leverage	0.001	0.002 ••	0.002 ••	0.002 •••
	1.51	2.26	2.05	2.98
POST FAS 142 × Leverage	0.003 •••	0.002 ••	0.003 •••	0.002 ••
	2.83	1.98	3.00	2.01
Log assets	0.000	0.000	0.000	0.000
	1.05	1.26	0.74	0.88
Market-to-book	0.000	0.000	0.000	0.000
	-0.34	-0.12	-0.33	-0.10
Litigation	-0.001 •••	-0.001 •••	-0.001 •••	-0.001 •
	-4.19	-3.37	-2.75	-1.90
R-squared	2.0%	3.0%	2.0%	3.1%