

The Stock Market Response to Changes in Business Combinations Accounting

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Abstract

In this paper, we investigate the stock market reaction to various announcements concerning possible changes to the regulatory framework surrounding business combination accounting in the United States over the period 1996-2000. All of these changes led to expected changes in reported earnings, but had no direct cash flow consequences. We find that the stock price reaction surrounding these changes is consistent with a market fixated on earnings and unable to make a distinction between cash flows and earnings. In particular, when it becomes more likely that future reported earnings will be lower, the stock prices of firms most affected by this decision decline. On the other hand, when future reported earnings are expected to increase, stock prices increase as well. We investigate rational explanations for these findings, but find that their implications for the cross-sectional variation in abnormal returns are not borne out by the data.

1. Introduction

At 11.46 a.m. E.S.T. on April 21, 1999, the following announcement appeared on the Business Wire News Service: “The Financial Accounting Standards Board announced today that it would eliminate pooling of interests as a method of accounting for business combinations. In a unanimous vote, the Board tentatively decided that using the purchase method is preferable to allowing more than one method to be used when businesses combine. The change will be effective for business combinations initiated after the FASB issues a final standard on the issues, which is expected to be late in 2000. The Board expects to issue for comment a formal proposal on business combination issues sometime early in the third quarter.”

On that and the following day, the average abnormal return experienced by a sample of 65 firms that used pooling of interests accounting (hereafter “pooling”) for all of their acquisitions in the 1992-95 period was a significantly negative 3.21%.

At 11.12 a.m. E.S.T. on December 20, 2000, the following announcement appeared on the Business Wire News Service: “At today’s public meeting, the Financial Accounting Standards Board (FASB) tentatively decided that goodwill recorded on corporate balance sheets, arising from acquisitions completed prior to the date the Board issues its final Statement on business combinations, should no longer be amortized.”

On that and the following day, the average abnormal return experienced by a sample of 167 acquirers for which goodwill exceeded 25% of total assets by year-end was a significantly positive 1.82%.

The goal of this paper is to understand the driving forces behind these returns. Our main result is that they are consistent only with an explanation that relies on an irrational market fixation with reported earnings. Specifically, while we examine an alternative explanation, which does not require such investor irrationality, we argue that this explanation has implications for the cross-section of abnormal returns surrounding these announcements that are not supported by the data.

Without question, accounting for business combinations has been one of the most heavily debated financial reporting issues over the past fifty years. For example, Barth and Schipper (1998) note that the issue has given rise to two Accounting Principles Board (APB) Opinions, 41 American Institute of Certified Public Accountants (AICPA) Interpretations of those Opinions, 3 FASB Interpretations, a FASB Technical Bulletin, 50 Emerging Issues Task Force (EITF) issues, 13 Securities and Exchange Commission (SEC) Staff Accounting Bulletins and 4 Accounting Series Releases. Much of this debate has centred on the question of the appropriate treatment in the consolidated financial statements of the “step-up”, that is, the difference between the price paid by the acquirer for the common stock of the target and the book value of the target’s net assets.

When the FASB agreed (on August 21, 1996) to add a project to its agenda revisiting the issue, two accounting treatments were available. Under the pooling method (which was only available if certain conditions were met), the assets and liabilities of the target were carried forward and combined with those of the acquirer at their original historical cost; i.e., the step-up was not recognised. Additionally, the post-transaction earnings figure of the combined entity was (assuming the absence of any changes in earnings arising as a result of genuine synergistic benefits, for example) simply the sum of the earnings the acquirer and the target would have reported had they remained independent entities. By contrast, under the purchase method of accounting, the acquirer first restates all of the target’s assets and liabilities to fair value and any difference between the price paid and this restated value is recorded as goodwill. The extant requirement (APBO 17) was that goodwill be amortized over a period not exceeding 40 years with the result that the post-transaction earnings figure of the combined entity was reduced by this amortization. An important point is that the amortization of goodwill has no cash flow implications since it is not a deduction for tax purposes.

This situation has now changed. Since June 30, 2001, acquiring firms can no longer employ the pooling method but are required to employ the purchase method and to record goodwill on their balance sheets. However, goodwill does not have to be amortized. Rather, on a regular basis, the firm has to conduct a goodwill impairment review; only when the recorded book value of goodwill is in

excess of its fair value does the firm have to write down goodwill and expense this write-down against earnings. Further, existing goodwill (i.e. goodwill arising from prior acquisitions accounted for using the purchase method) is also to be subjected to the same treatment; in other words, earnings will be affected only by write-downs of impaired goodwill and not by any regular amortization charge.

The five years it took for the FASB to reach a final decision is a reflection of the tremendous resistance from corporations, investment banks, and (in the later stages), lawmakers to the abolition of the pooling method. The main concern expressed by these parties was that an accounting change which would lead to lower reported earnings would have an adverse impact on corporate valuations, and the level of merger activity (in many ways, the new treatment of goodwill may be interpreted as a compromise on the part of the FASB in response to this concern).

Implicit in this resistance is an assumption that a change in reported earnings, without associated cash flow consequences, will indeed affect stock prices. Consequently, managers who are seeking to maximize their firm's stock market valuation will *ceteris paribus* have a strong preference for the accounting method which maximizes reported earnings. Of course, the focus on reported earnings may stem from factors other than a concern with firm value, as discussed by Aboody et al. (2000).

Our evidence suggests that the focus on earnings maximization may not be unwarranted, even when managers are concerned only with the maximization of firm value. As noted above, the stock price of firms that employed pooling for prior acquisitions declined significantly when the FASB tentatively decided to eliminate pooling in 1999. This is consistent with the following argument: (a) the market expected these firms to continue making acquisitions; and (b) these acquisitions would now need to be accounted for using the purchase method, leading to lower future reported earnings. It is this anticipated reduction in earnings which leads to the decline in the stock price at the announcement.

An alternative argument is that managers will no longer undertake acquisitions which, even though value enhancing, would lead to a reduction in reported earnings, and that the stock market

anticipates this. In other words, the market is fully rational, but expects management to alter its behavior. For this to be the case, however, we would expect the market's reaction to depend on the quality of the foregone acquisitions. When we employ the stock market's response to the firm's prior acquisitions to proxy for this quality, we fail to find any such effect.

Further support for the earnings fixation argument comes in December 2000 when the FASB announced that goodwill associated with previous acquisitions no longer has to be amortized, but will be subject only to impairment reviews. As noted above, this was good news (from an earnings impact perspective) for firms with substantial amounts of goodwill on their balance sheet. Assuming that, on average, future impairment losses are outweighed by the boost to earnings from the lack of amortization, these firms are now expected to report higher earnings in subsequent years. This assumption seems plausible: the need for impairment write-offs is determined by managers' estimates of future cash flows, thereby giving managers considerable discretion. Furthermore, when we divide this sample into groups on the basis of prior deal quality (again proxied by stock market response), we find a stronger reaction for firms whose acquisitions were well-received by the market. Given that impairment write-downs are required only when fair value falls below book value, the likelihood of such write-downs is decreasing in deal quality. Consequently, there will be a monotonic relationship between deal quality and the increase in future earnings resulting from the FASB's decision.

The remainder of this paper is organized as follows. In Section 2, we review the related literature. Section 3 discusses our sample selection procedure and research methodology and Section 4 contains a review of our results, and Section 5 describes robustness tests. In Section 6, we summarise and conclude.

2. Review of Related Literature

Previous research on accounting for business combinations has focused on two questions. First, do managers indeed "choose" the accounting method which maximizes reported earnings (i.e., pooling)? A number of early papers (including Gagnon (1967), Copeland and Wojdak (1969),

Anderson and Louderback (1975) and Nathan (1988)) provide evidence to support the “income-maximization” hypothesis. More recent evidence suggests that this preference strong enough as to lead to the inclusion of a provision in the merger agreement that the deal will not be completed if pooling cannot be secured. Weber (1999), for example, reviews 42 merger agreements and finds that 34 (over 80%) contain such a provision. Similarly (as reported by Aboody et al. (2000)), Mark McDade, a partner in a Big 5 corporate finance department was quoted in the February 1999 issue of CFO Magazine as saying: “It’s becoming more frequent that combinations are contingent on [applying] pooling. Companies walk away from deals all the time if they can’t pool for fear of the dilution caused by goodwill.”

There is also evidence to suggest that acquirers are willing to pay an additional premium to ensure that a transaction qualifies for pooling. For example, Robinson and Shane (1990) document that bid premia are, on average, higher for acquisitions which are accounted for using pooling while Ayers et al. (1998) find that after controlling for the determinants of accounting method, firms do in fact pay a premium to use pooling. Weber (1999) reports that 10 out of the 42 merger agreements in his sample contain an explicit provision for such an additional premium if pooling can be secured. Finally, Lys and Vincent (1995) document that AT&T paid at least \$50m and possibly as much as \$500m simply to ensure that its acquisition of NCR qualified for pooling.

The second question concerns whether the stock market response to an acquisition announcement is related to the accounting method to be used. The evidence here is mixed. Hong et al. (1978), Davis (1990), and Moehrl et al. (1999) find little or no evidence that the market reacts more favorably to the announcement of deals that are to be accounted for using pooling. Similarly, the results of Jennings et al. (1996) and Vincent (1997) suggest that the accounting method used by an acquirer has in itself little impact on its market valuation. By contrast, Andrade (1999) finds that accretion in earnings per share which is not accompanied by an increase in future cash flows has a “positive and statistically significant effect on acquirer abnormal performance, both at announcement and for the period up to 18 months following completion of the deal.” He also finds that “the

magnitude of the effect is higher for firms with a larger percentage of unsophisticated investors.” While earnings differ dramatically according to whether the purchase method or pooling is employed, there will usually be no difference in post-merger *cash flows* under the two methods.¹ Consequently, if investors are rational and value firms based on estimated future cash flows using all available information, firm valuations should be no higher (and perhaps lower) if pooling is employed. The results of Andrade (1999) suggest that, to some extent, this is not the case and that the market is not able to fully appreciate the cash flow implications of the post-merger earnings number.

Aboody et al. (2000) conjecture that factors other than the anticipated market reaction may explain this managerial preference for pooling. They find that the probability that a particular deal will be accounted for using pooling is increasing in the level of the step-up. In addition, for a given level of step-up, this probability is increasing in the percentage of managerial cash compensation which is performance (i.e. earnings) related and decreasing in leverage. Furthermore, firms which have either a share repurchase program in place or a large percentage of outstanding stock options are less likely to use pooling (since share repurchases are prohibited for the two years following a pooling deal). They conclude that the purchase versus pooling decision is driven by a trade-off between the benefits (such as higher managerial compensation) and costs (for example, the inability to make value-enhancing share repurchases) of pooling.²

The approach we adopt in the current paper is most closely related to that of Leftwich (1981) and, to a lesser extent, Weber (1999). Leftwich (1981) argued that the major impact of APBO 16 and 17 (the regulations in place before the recent change) was to make it more difficult for firms to employ pooling whilst at the same time reducing the income of firms using the purchase method. This reduction in income would have an indirect impact on shareholder wealth in that it made it more likely

¹ Alternatively, as will be the case if any of the increased depreciation and amortization is deductible for tax purposes, the use of the purchase method will result in higher cash flows. The Omnibus Budget Reconciliation Act of 1993 provided that if an acquisition represented an asset (rather than a stock) purchase, goodwill could be amortized over 15 years and deducted for tax purposes.

that debt covenants would be breached. Consequently, the share price reaction to various announcements related to these Opinions is expected to be negative, on average, and increasing in magnitude as the debt constraints becomes tighter. His results indicated a statistically significant and negative average share price reaction at 9 out of 21 announcements but only mixed support for the debt constraint hypothesis³. Weber (1999) investigates the market reaction to the release of SAB 96, an SEC regulation that restricts a firm's ability to repurchase shares following a transaction which is accounted for using pooling, and finds a significantly negative announcement day reaction for firms that had pending pooling transactions on that date.

3. Sample Selection and Methodology

As noted by Barth and Schipper (1998), there are four main factors to be considered when designing a "regulatory event study" in which the market reaction to announcements concerning proposed mandated changes in accounting method is investigated: (i) the choice of sample; (ii) the need to control for expectations; (iii) the need to control for related events; and (iv) the need to control for event-time clustering.

To be included in our initial sample, we first select all U.S. firms that made at least one acquisition of a U.S. company during the 1992 to 1995 period according to the Securities Data Corp database. We also require that these firms have stock returns available on CRSP so that we can compute the abnormal returns associated with the acquisitions. We end the sample selection period in 1995 because the initial announcement that the FASB was considering making changes to the accounting standard for business combinations came the following year. At this stage, we impose no criteria concerning deal size, medium of exchange or accounting method used – our objective here is

² Strictly speaking, it is only correct to characterise this as a trade-off to the extent that these costs are borne by managers.

³ The inconclusive results found by Leftwich may be partly explained by the fact that there was no suggestion that any change in the regulatory framework would be applied retrospectively. In addition, Beatty, Ramesh and Weber (2000) find that in a sample of 147 loan agreements, 107 exclude the effect of mandatory accounting changes for the purpose of determining debt covenant violations.

simply to construct a sample of firms which we will believe, ex-ante, will be affected by the proposed changes. However, when we investigate the market reaction to a specific event, we select firms from this initial broad sample based on the likelihood that they will be affected by the event in question.

Panel A of Table 1 contains summary statistics on the acquisitions and firms in the broad sample. In total, we evaluate 12548 transactions made by 4055 companies. Deal size is disclosed for just over 56% of these transactions and the average deal size (when disclosed) is \$104 million (median: \$13 million). On average, the value of the transaction represents around 25% (median: 6.4%) of the market value of the acquiring firm, whilst the average abnormal return (which we are able to compute for over 95% of the transactions) for the 3-day window surrounding the announcement is a statistically significant 1.14% (median: 0.3%). When we aggregate the transactions by acquirer, we find that, on average, a firm makes 3 acquisitions with a total value of \$238 million, representing 55% of its market value measured at the time of the announcement (median: 2 acquisitions, total value \$24million, representing 22% of market value). This evidence indicates that acquisitions have a substantial impact on the size of the acquiring firm.

In Panel B, we focus on the transactions completed using pooling accounting and the firms that used the pooling method for all of their deals during the period under consideration. Specifically, for a transaction to be included in Panel B, it must have been accounted for using the pooling method, whilst for a firm to be included, all of its transactions over the 1992-1995 period must have been accounted for in this way. Our interest in these firms stems from the fact that they are more likely to be affected by regulations that prohibit pooling than firms which have a history of using the purchase method for their transactions. When we compare the medians to those in panel A, we find that the firms and transactions are larger, but that the aggregate value of acquisitions made by a particular firm represents around the same fraction of its market value (17.9% compared to the 20.7% in Panel A). Note also that the announcement window abnormal returns, while positive, are not significantly different from zero.

To control for expectations, we undertake (using the Dow Jones Interactive database) a detailed search of the major business wire services and The Wall Street Journal, with the keywords “FASB” and one of the following: “pooling”, “purchase accounting”, “goodwill amortization”, covering the period from January 1996 to December 2001. This search results in 427 news articles, although many of these are duplications. Further, a detailed review of these articles indicates that many of them do not actually contain any new information but are merely speculative or refer to earlier events or specific companies. For example, on June 2, 1999, the Wall Street Journal contains a story describing the FASB’s decision to eliminate pooling in April 1999 with an explanation of the differences between the two accounting methods. The principal reason for performing this search is to identify genuine shifts in the market’s perception of the likelihood of a mandated change in accounting method. Our view is that an article of this type does not in fact represent such a shift and is therefore excluded from our analysis.

A second category of article does have informational content, even though it does not necessarily refer to firm decisions made by the FASB. For example, on July 1, 1997, the Wall Street Journal reports that an FASB official told the WSJ that the board may back away from its earlier threat to restrict or abolish pooling of interest. The date on which this category of article appears *is* included in the analysis. Finally, several articles refer to actual FASB decisions or to the issuance of FASB pronouncements. For example, on April 21, 1999, the FASB voted to eliminate pooling accounting. Obviously, these events are included and will be the focus of the analysis.

As a result of this search process, we identify the following eight news events:

August 21, 1996	The FASB agrees to add a project to its agenda that will address the issue of accounting for business combinations and intangible assets. Quotes by the FASB Chairman, Dennis R. Beresford reported in the press the following day suggest restrictions on the use of pooling.
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- July 1, 1997 The following article appears in the Wall Street Journal (WSJ):
- “A FASB official told the WSJ that the board may back away from its earlier threat to restrict or abolish pooling of interest Now, the FASB said it may retain poolings but make purchase accounting less onerous by eliminating amortization of goodwill. Officials on Monday (30 June) said that the FASB may let companies report goodwill on the balance sheet but subject goodwill to periodic testing for impairment.”
- December 16, 1998 The following article appears in the Wall Street Journal (WSJ):
- “The FASB, seeking to buttress its position, released a report from foreign accounting rule makers that supports eradicating pooling.... As the FASB issued the paper for a 60-day comment period, it also braced itself for a hostile reaction from deal makers on Wall Street.”
- (further investigation reveals that the report was actually released on the previous day, 15 December 1998)
- April 21, 1999 The FASB votes unanimously to replace pooling with the purchase method.
- September 8, 1999 The FASB issues an Exposure Draft in which it formalised its proposal to abolish pooling and require the use of the purchase method for all business combinations.
- October 3, 2000 The following story appears on the Dow Jones News Service :
- “Lawmakers are set to fire a warning shot at the FASB, calling on the independent standard setter to back off the controversial subject of accounting for mergers and other business combinations. ... ”
- December 6, 2000 The following story appears on the Dow Jones News Service :
- “The FASB reached a tentative decision to modify certain provisions of its September 1999 proposed Statement, Business Combinations and Intangible Assets, to require use of a nonamortization approach to account for purchased goodwill. Under that approach, goodwill would not be amortized against earnings. Instead, it would be reviewed for impairment, that is, written down and expensed against earnings only in the periods in which the recorded value of goodwill is more than its fair value”.
- December 20, 2000 The following story appears on the Dow Jones News Service:
- The FASB tentatively decided that goodwill recorded on corporate balance sheets, arising from acquisitions prior to the date the Board issues its final Statement on business combinations, should no longer be amortized. From the date of issuance, all goodwill would be accounted for using an impairment approach.

A further problem we face is the identification of the exact event date. For example, in the context of the news event on August 21, 1996, should we use that date (the date on which the decision was made to add the project to the FASB agenda) or the following date (the date on which the decision was reported in the media) as our event date? To mitigate any concerns regarding a potential mis-identification of the event date, we compute two-day abnormal returns for all announcements. We make one exception to this rule: for the announcement on December 6, 2000, we also include the previous day because of comments made the FASB chairman in a speech to the American Institute of Certified Public Accountants (AICPA) which suggested that such a decision was forthcoming. However, our results remain unchanged if we do not include that day. In total, therefore, we study the stock price reaction on 17 days associated with the eight events listed above.

Given our sample selection process, we believe that the issue of related or confounding events is not a significant one since our sample consists of a large number of firms which vary widely across a number of dimensions and in particular, size and industry membership.

The concern with event-time clustering arises because the event date is identical for all firms in the sample and there is likely to be a cross-correlation in the residuals. To overcome this problem, we use a simple portfolio construction approach. Specifically, for each event date t , we identify those firms in our original sample for which we have stock return data for date t . We then construct an equally-weighted portfolio of those firms and estimate the following time series regression model for the period 1995-2000:

$$r_{pt} = a + br_{mt} + \sum_{j=1}^{17} \delta_j d_{jt}$$

where r_{pt} denotes the return on the portfolio, r_{mt} denotes the return on the equally-weighted CRSP market portfolio, and d_{jt} is a dummy variable which is equal to 1 if t is equal to event date j and zero otherwise.

Since different events might reasonably be expected to have an impact on different sets of firms, we construct several sub-samples from our original sample of 1992-1995 acquirers. To examine the impact of announcements related to the abolition of pooling accounting, we form a sample of firms who used pooling exclusively for all of their transactions in the 1992-1995 period. To examine the impact of announcements related to changes in the amortization of goodwill, we form a sample of acquirers who had high levels of goodwill on their balance sheet in the year the announcement was made. We employ several cut-offs to determine what level of goodwill is considered “high” to make sure that our results are robust.

4. Results

Panel A of Table 2 reports the abnormal returns around the eight events for two groups of firms. Column (i) contains data for the acquirers with only pooling transactions over the 1992-1995 period, whereas column (ii) focuses on the acquirers with a ratio of goodwill to assets of at least 25% at the end of 2000. We focus on year-end 2000 data because the most relevant announcements related to changes in goodwill amortization occur in 2000. Our results remain unchanged when we use 1999 data or the average of 1999 and 2000 data.

Of the eight events studied, the abnormal return to the sample of poolers is significant in only one case. This is April 21, 1999, the date on which the FASB voted to eradicate pooling. On that day and the next, the average market value of the portfolio of pooling firms declined by 3.21% (p-value = 0.00). Ex-ante, this is clearly the event where we would expect to find the strongest reaction – the position of the FASB regarding the abolition of pooling had become increasingly unclear (as noted above, the June 30, 1997 statement by a FASB official contained the explicit suggestion that pooling might not be abolished) and so the vote has genuine informational content. The actual Exposure Draft was released five months later on September 8, 1999. Given that this is mere confirmation of the decision made in April (and that nothing in the intervening period had occurred to suggest that the

abolition of pooling would not be the cornerstone of the Exposure Draft), the lack of a significant stock price reaction around this event (a positive 0.28% with a p-value of 0.75) is therefore not surprising.

What may appear surprising is the lack of a positive stock price response on December 6, 2000, when the FASB decided that the goodwill arising from new acquisitions would not have to be amortized, but would be subject to an impairment review. There are two possible explanations for this finding. First, it may be the case that the information content of this announcement was smaller because it was anticipated by the market – the issue had been under consideration for some time and there appeared to be a belief that the impairment approach was seen by the FASB as an acceptable compromise. Second, the announcement of this compromise may have been interpreted as confirmation that the abolition of pooling accounting was now essentially a certainty. Thus, the good news (less onerous goodwill write-offs) and bad news (no more pooling) may cancel each other out. The lack of a response on December 20, 2000 for pooling firms is to be expected, because this announcement refers to goodwill related to prior transactions. This news is irrelevant for firms who used the pooling method exclusively.

In the last two rows of Table 2, we sum the abnormal returns, first, across all events and, second, across events which were actual FASB decisions. For those events that are beneficial (from an earnings perspective) for firms following pooling accounting, we reverse the sign. We also remove the announcement on December 20, 2000, which has no relevance for poolers, and the announcement on December 6, 2000, which has ambiguous implications. Overall, we find a negative abnormal return of 3.92% (p-value = 0.06) on days when pooling accounting is more likely to be eliminated.

As discussed above, the advantage of using a two or three day event window is that it alleviates any concerns about the inability to accurately identify the event date. However, this accounting issue is obviously one of major concern to the investment and corporate communities. In addition, the dates of FASB meetings and the agenda for such meetings are all public information. Finally, the presence of sources such as the Business News Wire means that news can be

disseminated on an almost real-time basis. Hence, it might be argued that the event date can in fact be accurately identified with little effort and that using an extended event window is needlessly reducing the power of our tests. Consequently, in Panel B of Table 2, we replicate our analysis but now consider only the date of the actual decision or announcement. The results for the sample of poolers (reported in column i) are qualitatively similar to those in Panel A. The abnormal return on the day of the FASB vote to abolish pooling is a negative 1.94% (p-value = 0.00) while the abnormal returns on the days of the three previous events (project added to agenda; statement suggesting pooling may not be abolished; release of G4 + 1 report supporting eradication of pooling) are all insignificant. This provides further evidence to support the argument that, although the market may have interpreted these announcements as an indication of the probability that pooling was to be abolished, the prospect of any action was simply too distant to warrant a major reaction.

There are two major differences between Panels A and B. First, the abnormal return surrounding the tentative decision to replace (in new deals) amortization with an impairment review is now -1.54% (p-value = 0.01). Above, we argued that the news on December 6, 2000 was ambiguous. The negative reaction documented when we focus only on the announcement date is consistent with the interpretation that this change to the goodwill amortization rules implies that pooling accounting will now almost certainly be abolished. The second difference between the two Panels relates to the total effect which is now -2.03% (p-value: 0.17), compared to -3.92% in Panel A.

The evidence described above is consistent with a market fixation on earnings and a belief that the firms in our pooling sample will continue to make acquisitions, but will now have to use purchase accounting, leading to lower profits than previously anticipated. There are at least two alternative interpretations for our findings, however, which do not rely on investor irrationality. One possibility is that managers prefer to report higher earnings, and will reduce their acquisition activity when the pooling method is no longer available. If these acquisitions were expected to be value enhancing, we would expect the market to react negatively. This interpretation of the results has implications for the cross-sectional variation in abnormal returns. If firms are expected to reduce their acquisition activity,

this should indeed be bad news for firms whose acquisitions were expected to create value, but should be good news for firms whose acquisitions were expected to destroy value. The second alternative interpretation also relies on the effect of reduced deal flow. If the announcement of the abolition of pooling leads to a reduction in takeover activity, this is also bad news for potential targets, since target shareholders earn significantly positive abnormal returns when their firm is taken over. However, not every firm has the same likelihood of being acquired; in fact, we know from the work by Mitchell and Lehn (1990) that bad bidders, i.e., firms who lose market value when they announce takeovers, are more likely to become targets themselves. Thus, any news affecting deal flow should be worse for bad bidders than for good bidders.

In sum, the alternative interpretations of our results have implications for the cross-sectional variation in abnormal returns associated with the regulatory events. In Table 3, we examine whether these predictions are borne out by the data. Again, Panel A uses a two or three-day event window while in Panel B we restrict ourselves to a single day window. We divide the firms in our pooling sample into two groups based on the total abnormal stock price response associated with their acquisitions during the 1992-95 period. Our assumption is that firms who made poor acquisitions in the past are more likely to continue this pattern. Good acquirers are defined as those firms whose total returns around prior acquisition announcements are positive; for bad acquirers they are negative. As illustrated, the abnormal returns around the event dates are typically not significantly different from each other. In particular, around the key date of the analysis (April 21, 1999), we find negative abnormal returns of 2.81% for good bidders and 3.57% for bad bidders using the extended window – the difference between the two is not significant. Using the shortened event window, the equivalent results are –1.77% for good acquirers and –2.11% for bad acquirers, and the difference is again insignificant. Our evidence is therefore not consistent with the alternative interpretations, but points firmly towards earnings fixation.

In column (ii) of Table 2, we focus on the high goodwill acquirers. These are firms who made acquisitions in the past that were accounted for using the purchase method. Thus, we do not expect

them to respond to announcements associated with the abolition of pooling. It is therefore not surprising that we find no significant abnormal returns around the first four events (using either the long or short event window), all of which refer mainly to changes in the rules relating to pooling.⁴ Of more interest is the response to the replacement of amortization with an impairment review for existing goodwill. Given the composition of our sample, this decision will have a noticeably positive impact on the future reported earnings of these firms. Again consistent with our argument that the heated debate surrounding this issue has at its roots in a fixation on reported earnings, we find that this decision gives rise to a 1.82% (p-value = 0.00) two-day and a 0.97% (p-value = 0.02) one-day abnormal return.

We also examine whether the stock price response on December 20, 2000 is related to the quality of the firms' prior acquisitions. Under an impairment regime, future earnings will be impacted only if the fair value of goodwill falls below its book value. Other things being equal, this is more likely to be the case if the acquisition to which the goodwill relates is one in which the acquirer overpaid for the target. Assuming that it is reasonable to use the announcement period abnormal return as a proxy for the market's perception of the extent to which overpayment occurred, we should therefore find the share price reaction to the decision to be larger for good acquirers. As shown in Table 4, this is indeed the case. Using the two day event window (Panel A), we find an abnormal return of 2.19% for good acquirers and 1.19% for bad acquirers – the difference of 0.99% has a p-value of 0.29. The result becomes more pronounced when we use the single day event window (Panel B). The abnormal returns to the two groups of acquirers are both lower: 1.47% for the good acquirers and 0.10% for the bad acquirers. The difference in returns between the two sets of firms increases, however, to 1.37% which is significant at the 4% level.⁵ Again, these findings support the earnings fixation argument.

⁴ We do, however, find a significantly negative response to the issue of the exposure draft and a significantly positive reaction when the lawmakers first become involved. At this point, it is not clear what is driving these returns.

⁵ If the market is fixated on earnings, is it still reasonable to employ the stock price reaction to prior acquisitions to determine the market's assessment of the likelihood of future goodwill impairment?

5. Robustness Tests

The analyses in the previous sections rely on a number of cut-offs that appear quite arbitrary. In this section, we report the results of several robustness checks based on alternative cut-offs.

First, the sample employed to examine the stock price reaction to changes in pooling accounting consists of firms that employed pooling for all their transactions during the 1992-1995 period. This selection process could be deemed too restrictive because firms with even one transaction accounted for using the purchase method are excluded. Our results remain unchanged, however, when we relax this constraint and include firms who employed pooling in at least half their transactions.

Second, the sample employed to study the impact of changes in goodwill amortization focuses on firms with goodwill to assets of at least 25%. We have employed cut-offs between 15% and 50% (increasing the cut-off beyond 50% reduces the sample to just a handful of firms) with similar results. Only when we reduce the cut-off to firms with goodwill to assets below 15% is the abnormal return on December 20, 2000 not significant at the 10% level. This is not surprising since the added firms are those for which the announcement has less relevance. Thus, the average stock price reaction is smaller and the associated standard error is larger.

Third, we also verify that for the December 20, 2000 announcement there is a significant difference in the stock price reaction between firms with no goodwill on their books and firms with goodwill in excess of the different thresholds we apply.

Indeed, it could be the case that the market's earlier response was not related to the actual quality of the acquisition at all, but was merely based on the projected reported earnings after the transaction was completed. This is, in fact, what we would expect if the market is fixated on earnings. However, even if this is the case, it does not invalidate our approach. All that is required, is that the stock price reaction around prior acquisitions is a good indicator 'in the eyes of the investors' of the probability that goodwill will be impaired. Whether this is actually the case or not is irrelevant for our test.

6. Summary and conclusions

When the FASB indicated that it was considering the abolition of pooling, companies and investment banks protested, followed at a later stage by lawmakers. At the root of the protest was the belief that a reduction in reported earnings would lead to a reduction in firm value, even if there were no related cash flow consequences. This belief stems from the notion that investors are fixated on reported earnings. In this paper we examine whether this belief is reasonable in the context of accounting for business combinations.

Prior research supports the notion that managers prefer to report higher earnings, holding cash flows constant. In particular, we know that in takeovers, managers prefer to employ the accounting method which leads to the highest reported earnings in subsequent years. However, a managerial preference for high earnings does not necessarily imply earnings fixation on the part of market participants. In fact, the existing evidence supports the conjecture that managers prefer to report higher earnings partly because their compensation depends on it.

The evidence reported in this paper suggests that the market's fixation on reported earnings is a key consideration as well. When the FASB announced its decision to abolish pooling accounting, the stock price of firms who employed pooling accounting for their previous transactions declined by more than 3%. The reaction does not depend on whether or not the market responded positively to the previous acquisitions announced by these firms. It is therefore unlikely that the changes in expected deal flow can explain the effect. Similarly, when the FASB announced that firms no longer had to write off goodwill associated with previous acquisitions, firms with a lot of goodwill on their books experienced a positive stock price reaction of almost 2%. In addition, the response is better for those firms that are less likely to have to review their goodwill for impairment.

In sum, our findings indicate that, despite recent suggestions that the market is moving towards a cash-flow based analysis of business combinations, the effect on reported earnings still appears to be of paramount importance.

Table 1

Summary statistics on acquisitions and acquirers

Firms are included in the sample if they made at least one U.S. acquisition over the period 1992-1995 according to Securities Data Corp and if they have sufficient returns available on the CRSP database to compute abnormal returns around the announcement date. Abnormal returns are computed using the market model and are cumulated over the three-day window starting the day before the announcement date. Number of acquisitions in the total number of acquisitions made by each firm. Total value of transactions is the total value of acquisitions made by each firm. When total value of transaction as fraction of market value of acquirer is computed, the market value at each announcement date is employed. The p-values of a t-test (sign rank test) of equality of the mean (median) abnormal return to zero is listed in parentheses. Panel B contains only transactions executed using pooling accounting, and for acquirer statistics only acquirers who completed all of their transactions using pooling accounting.

Panel A: Full sample

Variable	Mean	Median	N
Market value of acquirer (\$millions)	2301	242	12548
Value of transaction (\$millions)	104	13	7087
Value of transaction as fraction of market value of acquirer	0.242	0.064	7087
Abnormal return (p-value)	0.0114 (0.00)	0.0027 (0.00)	11943
Number of acquisitions	3.09	2	4055
Total value of transactions (\$millions)	238	24	3100
Total value of transaction as fraction of market value of acquirer	0.553	0.207	3100
Total abnormal return	0.0336 (0.00)	0.0123 (0.00)	4055

Panel B: Only for transactions that use pooling accounting and firms that use pooling exclusively

Variable	Mean	Median	N
Market value of acquirer (\$millions)	1455	512	832
Value of transaction (\$millions)	251	35	778
Value of transaction as fraction of market value of acquirer	0.23	0.10	778
Abnormal return (p-value)	-0.0006 (0.80)	-0.0036 (0.16)	816
Number of acquisitions	1.26	1	110
Total value of transactions (\$millions)	119	35	106
Total value of transaction as fraction of market value of acquirer	0.336	0.179	106
Total abnormal return	0.0133	-0.0024	110

Table 2: Panel A
Abnormal returns around the event dates for relevant portfolios (two/three day event window)

Date	Event	Only firms with all pooling transactions		Only firms with goodwill/assets > 25%	
		(i) Abnormal return (p-value)	N	(ii) Abnormal return (p-value)	N
August 21, 1996	Project added to FASB agenda	0.96% (0.26)	94	-0.27% (0.63)	181
June 30, 1997	FASB official suggests pooling may not be abolished	0.21% (0.80)	85	-0.56% (0.32)	181
December 15, 1998	Release of G4 + 1 report supporting eradication of pooling	-0.92% (0.28)	72	-0.07% (0.90)	179
April 21, 1999	FASB votes to abolish pooling	-3.21% (0.00)	65	-0.20% (0.73)	177
September 8, 1999	Issue of Exposure Draft	0.28% (0.75)	62	-1.00% (0.08)	174
October 3, 2000	Lawmakers calling FASB to back off from changes	0.82% (0.33)	54	1.39% (0.01)	168
December 6, 2000	Tentative decision on non-amortization for goodwill in new deals	-0.03% (0.97)	52	-0.93% (0.18)	167
December 20, 2000	No amortization for goodwill in previous deals	-0.42% (0.63)	52	1.82% (0.00)	167
Total (sign is reversed for good news)		-3.92% (0.06)			

Table 2: Panel B
Abnormal returns around the event dates for relevant portfolios (one day event window)

Date	Event	Only firms with all pooling transactions		Only firms with goodwill/assets > 25%	
		(i) Abnormal return (p-value)	N	(ii) Abnormal return (p-value)	N
August 21, 1996	Project added to FASB agenda	0.38% (0.54)	94	-0.28% (0.48)	181
June 30, 1997	FASB official suggests pooling may not be abolished	-0.24% (0.69)	85	-0.19% (0.63)	181
December 15, 1998	Release of G4 + 1 report supporting eradication of pooling	-0.56% (0.35)	72	-0.27% (0.49)	179
April 21, 1999	FASB votes to abolish pooling	-1.94% (0.00)	65	0.18% (0.65)	177
September 8, 1999	Issue of Exposure Draft	-0.28% (0.64)	62	-0.71% (0.08)	174
October 3, 2000	Lawmakers calling FASB to back off from changes	-0.14% (0.82)	54	0.95% (0.02)	168
December 6, 2000	Tentative decision on non-amortization for goodwill in new deals	-1.54% (0.01)	52	-0.29% (0.47)	167
December 20, 2000	No amortization for goodwill in previous deals	-0.33% (0.59)	52	0.97% (0.02)	167
Total (sign is reversed for good news)		-2.03% (0.17)			

Table 3: Panel A
 Abnormal returns around the event dates for portfolios of firms with only pooling transactions (two/three day event window).

Date	Event	Good acquirers		Bad acquirers		Good minus bad acquirers
		Abnormal return (p-value)	N	Abnormal return (p-value)	N	
August 21, 1996	Project added to FASB agenda	1.03% (0.42)	47	0.90% (0.39)	47	0.13% (0.93)
June 30, 1997	FASB official suggests pooling may not be abolished	-0.23% (0.86)	43	0.67% (0.52)	42	-0.89% (0.57)
December 15, 1998	Release of G4 + 1 report supporting eradication of pooling	-0.80% (0.53)	34	-1.03% (0.32)	38	0.23% (0.88)
April 21, 1999	FASB votes to abolish pooling	-2.81% (0.03)	31	-3.57% (0.00)	34	0.77% (0.62)
September 8, 1999	Issue of Exposure Draft	-1.69% (0.18)	29	2.00% (0.05)	33	-3.70% (0.02)
October 3, 2000	Lawmakers calling FASB to back off from changes	-0.58% (0.65)	24	1.95% (0.06)	30	-2.53% (0.11)
December 6, 2000	Tentative decision on non-amortization for goodwill in new deals	-0.96% (0.53)	22	0.64% (0.62)	30	-1.60% (0.40)
December 20, 2000	No amortization for goodwill in previous deals	-0.64% (0.62)	22	-0.23% (0.83)	30	-0.41% (0.79)
Total (sign is reversed for good news)		-3.46% (0.26)		-4.31% (0.08)		0.85% (0.82)

Table 3: Panel B
Abnormal returns around the event dates for portfolios of firms with only pooling transactions (one day event window)

Date	Event	Good acquirers		Bad acquirers		Good minus bad acquirers
		Abnormal return (p-value)	N	Abnormal return (p-value)	N	
August 21, 1996	Project added to FASB agenda	0.48% (0.59)	47	0.26% (0.72)	47	0.22% (0.84)
June 30, 1997	FASB official suggests pooling may not be abolished	-1.23% (0.17)	43	0.77% (0.30)	42	-2.00% (0.07)
December 15, 1998	Release of G4 + 1 report supporting eradication of pooling	-0.53% (0.55)	34	-0.58% (0.43)	38	0.05% (0.96)
April 21, 1999	FASB votes to abolish pooling	-1.77% (0.05)	31	-2.11% (0.00)	34	0.34% (0.76)
September 8, 1999	Issue of Exposure Draft	-0.81% (0.37)	29	0.18% (0.81)	33	-0.99% (0.37)
October 3, 2000	Lawmakers calling FASB to back off from changes	-0.67% (0.45)	24	0.29% (0.69)	30	-0.96% (0.38)
December 6, 2000	Tentative decision on non-amortization for goodwill in new deals	-2.26% (0.01)	22	-1.01% (0.17)	30	-1.25% (0.26)
December 20, 2000	No amortization for goodwill in previous deals	-0.66% (0.47)	22	-0.07% (0.93)	30	-0.59% (0.60)
Total (sign is reversed for good news)		-0.72% (0.74)		-3.32% (0.07)		2.60% (0.33)

Table 4: Panel A
Abnormal returns around the event dates for portfolios of firms with goodwill/assets > 25% (two/three day event window)

Date	Event	Good acquirers		Bad acquirers		Good minus bad acquirers
		Abnormal return (p-value)	N	Abnormal return (p-value)	N	
August 21, 1996	Project added to FASB agenda	-0.18% (0.79)	118	-0.44% (0.58)	63	0.26% (0.79)
June 30, 1997	FASB official suggests pooling may not be abolished	-0.29% (0.67)	118	-1.07% (0.18)	63	0.79% (0.40)
December 15, 1998	Release of G4 + 1 report supporting eradication of pooling	-0.46% (0.50)	116	0.63% (0.43)	63	-1.09% (0.25)
April 21, 1999	FASB votes to abolish pooling	-0.15% (0.82)	115	-0.29% (0.72)	62	0.13% (0.89)
September 8, 1999	Issue of Exposure Draft	-1.66% (0.01)	112	0.19% (0.81)	62	-1.84% (0.05)
October 3, 2000	Lawmakers calling FASB to back off from changes	1.19% (0.08)	106	1.74% (0.03)	62	-0.55% (0.56)
December 6, 2000	Tentative decision on non-amortization for goodwill in new deals	-1.03% (0.22)	105	-0.76% (0.43)	62	-0.26% (0.82)
December 20, 2000	No amortization for goodwill in previous deals	2.19% (0.00)	105	1.19% (0.14)	62	0.99% (0.29)

Table 4: Panel B
 Abnormal returns around the event dates for portfolios of firms with goodwill/assets > 25% (one day event window)

Date	Event	Good acquirers		Bad acquirers		Good minus bad acquirers
		Abnormal return (p-value)	N	Abnormal return (p-value)	N	
August 21, 1996	Project added to FASB agenda	-0.25% (0.60)	118	-0.35% (0.54)	63	0.10% (0.88)
June 30, 1997	FASB official suggests pooling may not be abolished	0.19% (0.69)	118	-0.91% (0.11)	63	1.10% (0.10)
December 15, 1998	Release of G4 + 1 report supporting eradication of pooling	-0.21% (0.66)	116	-0.39% (0.49)	63	0.17% (0.80)
April 21, 1999	FASB votes to abolish pooling	0.42% (0.38)	115	-0.26% (0.64)	62	0.69% (0.31)
September 8, 1999	Issue of Exposure Draft	-1.04% (0.03)	112	-0.11% (0.85)	62	-0.94% (0.16)
October 3, 2000	Lawmakers calling FASB to back off from changes	0.84% (0.08)	106	1.14% (0.04)	62	-0.29% (0.66)
December 6, 2000	Tentative decision on non-amortization for goodwill in new deals	-0.14% (0.77)	105	-0.54% (0.34)	62	0.41% (0.54)
December 20, 2000	No amortization for goodwill in previous deals	1.47% (0.00)	105	0.10% (0.86)	62	1.37% (0.04)

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