

The valuation impact of reconciling pro forma earnings to GAAP earnings

Huai Zhang*, Liu Zheng

Abstract

Regulation G requires all companies to quantitatively reconcile pro forma earnings with GAAP earnings. This paper provides three findings related to the impact of reconciliations on mispricing of pro forma earnings. First, prior to Reg G, we find that mis-pricing of pro forma earnings is limited to firms with low reconciliation quality. There is no evidence of mispricing for firms with high reconciliation quality. Second, we find no evidence of mispricing after Reg G. Third, there is a cross-Reg G reduction of mispricing for firms whose reconciliation quality improves, and there continues to be no-mispricing for firms that have high reconciliation quality both before and after Reg G. Together, our results support the notion that better reconciliations reduce the extent of mispricing.

*Corresponding author. Tel: +65-6790-4097. Email: huaizhang@ntu.edu.sg. Zhang is from Nanyang Technological University and Zheng is from the University of Hong Kong. We are grateful to an anonymous reviewer and to Ross Watts, the editor, for suggestions that substantially improved the paper. We also received helpful comments from Qiang Cheng, Ted Christensen, Xiaohui Gao, Weili Ge, Christo Karuna, Bin Ke, Clive Lennox, Jing Liu, Hai Lu, Rujing Meng, Mort Pincus, Charles Shi, James Vere, Siyan Wang, Jianguo Xu, Pai Xu, participants at the 2005 American Accounting Association Annual Meeting, and seminar participants at Chinese University of Hong Kong, City University of Hong Kong, Georgia State University, Hong Kong Polytechnic University, Hong Kong University of Science and Technology, London Business School, Nanyang Technological University, University of California at Irvine, and University of Hong Kong. We thank Cui Cui, Henry Yuen, Kelsey Xia, Oisum Li, Li Jiang, Gary Liu, Jason Tong, Zil Yau, Huifang Ying and Lavender Xu for their able research assistance. Zheng acknowledges funding support from the Research Grant Council of the Hong Kong Special Administrative Region, China (HKU 7429/06H).

1. Introduction

Pro forma earnings are a popular form of voluntary disclosure. According to a *Wall Street Journal* article (August 21, 2001, p. 1), in the second quarter of 2001, 300 of the S&P 500 companies reported pro forma earnings. One salient characteristic of pro forma earnings is that managers have considerable discretion in deciding which GAAP items to exclude. As a result, different companies compute pro forma earnings differently and, for the same firm, items excluded from pro forma earnings can change over time.

The considerable discretion that managers have over the definition of pro forma earnings is worrisome to security regulators. Noting that non-GAAP information has “no defined meaning and no uniform characteristics,” the SEC issued a warning in December 2001, cautioning public companies not to mislead investors (SEC, 2001). On January 16, 2002, Trump Hotels & Casino Resorts Inc. was charged by the SEC for misleading investors because its pro forma earnings included special gains but excluded special losses (SEC, 2002a). On January 22, 2003, the SEC finalized Reg G to regulate the disclosures of pro forma earnings. Effective on March 28, 2003, Reg G stipulates that disclosures containing pro forma earnings must provide the most directly comparable GAAP number and a clearly understandable quantitative reconciliation of the two earnings numbers. The SEC argued in its final ruling statement that “the reconciliation will provide the securities markets with additional information to more accurately evaluate companies' securities and, in turn, result in a more accurate pricing of securities” (SEC, 2002b).

Previous empirical research using data prior to Reg G finds that the higher the pro forma earnings relative to GAAP earnings, the lower the future returns (Doyle et al., 2003;

Lougee and Marquardt, 2004). This evidence is consistent with investors being misled by pro forma disclosures. It is not clear, however, whether reconciliations result in more accurate pricing of securities, as the SEC conjectured. If better reconciliations provide investors with more information about pro forma adjustments, investors are likely to be better informed, which increases the chance that stocks are priced correctly. However, if the information contained in reconciliations can be obtained elsewhere, for example, if it can be inferred from the income statement, reconciliations will not affect securities pricing as they essentially contain no incremental information. Further, if firms are strategic in their reconciliation decisions and investors are not aware of this, reconciliations may even exacerbate the extent of mispricing. Thus, whether reconciliations result in more accurate pricing of securities is an empirical issue, which we investigate in this paper.

To examine this issue, we conduct three separate but related tests. First, we investigate whether there is less mispricing of pro forma earnings for firms with high reconciliation quality in the period prior to Reg G. At this time, there was substantial variation in reconciliation quality due to the lack of relevant regulation. Affirmative evidence would be consistent with the notion that high quality reconciliations help to reduce the mispricing of pro forma earnings. In our analysis, we control for a host of variables that affect firms' reconciliation quality to alleviate the concern that reconciliation quality proxies for those variables.

Second, given that Reg G mandates a high level of reconciliation quality, we triangulate the results from the first test by examining whether pro forma earnings are

mispriced after Reg G. Our results also serve as direct evidence on the effectiveness of Reg G in curbing the mispricing associated with pro forma earnings.

Third, we apply a difference-in-difference approach to investigate whether mispricing is reduced after the improvement in reconciliation quality.¹ Specifically, we compare changes in the extent of mispricing for two types of firms: firms with low reconciliation quality prior to Reg G but high reconciliation quality after Reg G (improvers) and firms with consistently high reconciliation quality both before and after Reg G (non-improvers). If reconciliations reduce mispricing, we expect a significant reduction in the extent of mispricing for improvers but not for non-improvers.

Results from all three tests support the notion that reconciliations reduce mispricing of pro forma earnings. In particular, prior to Reg G, we find that mispricing of pro forma earnings exists only in firms with low reconciliation quality and there is no evidence of mispricing for firms with high reconciliation quality. After Reg G, no evidence of mispricing is found. Across Reg G, there is a reduction of mispricing for firms that improve reconciliation quality, but there continues to be no mispricing for firms that consistently have high reconciliation quality. Together, our results support the SEC's claim that better reconciliations result in more accurate pricing of securities. We further investigate whether changes in the quality of items excluded from pro forma earnings explain our results, and we find no evidence supporting this alternative explanation.

Our paper contributes to the literature on pro forma disclosures. Several papers investigate investors' possible mispricing of pro forma earnings, and their findings are generally consistent with pro forma earnings being mispriced. In an experimental setting,

¹ Throughout the paper, the term “mispricing” refers to mispricing associated with pro forma earnings.

Frederickson and Miller (2004) find that less sophisticated investors value the firm higher when it reports a higher pro forma earnings measure in addition to GAAP earnings than when it reports GAAP earnings only. Doyle et al. (2003) use actual earnings reported by I/B/E/S as proxies for pro forma earnings and find that, consistent with pro forma earnings being mispriced, the higher the I/B/E/S earnings relative to GAAP earnings, the lower the future returns. Lougee and Marquardt (2004) manually collect pro forma earnings data and report evidence of mispricing when the informativeness of GAAP earnings is high and when GAAP earnings surprises are negative. We provide evidence that better reconciliation quality reduces mispricing of pro forma earnings. Specifically, we show that mispricing documented by the prior literature exists only among firms with low reconciliation quality but not among firms with high reconciliation quality. Our empirical evidence has implications for how to alleviate mispricing of pro forma earnings, which is of great importance to researchers, investors and securities regulators.

Our paper also contributes to the growing literature on the impact of SEC regulations on pro forma disclosures. Marques (2006) finds that after Reg G, the probability of pro forma earnings disclosures declines and investors react more positively to such disclosures. Kolev et al. (2008) document that items excluded from pro forma earnings are more transitory after Reg G. They also find that firms that stopped releasing non-GAAP earnings numbers after Reg G have lower quality exclusions prior to Reg G. Yi (2007) presents evidence that firms with communication motives (opportunistic motives) are more (less) likely to continue disclosing pro forma earnings in the post-Reg G period. Heflin and Hsu (2008) find that Reg G reduces the frequency of non-GAAP earnings disclosures, the magnitude of amounts

excluded from GAAP earnings, and the association between returns and forecast errors. Although these studies address important research questions, they do not address whether Reg G achieves its stated purpose of reducing the extent of mispricing. We contribute to this line of literature on pro forma disclosures by filling this void.

The rest of the paper is organized as follows. Section 2 describes our measures of mispricing and reconciliation quality. Sections 3 and 4 present the pre-Reg G analysis and the post-Reg G analysis, respectively. Section 5 considers an alternative explanation for our results, and Section 6 concludes.

2. Measures of mispricing and reconciliation quality

This section discusses our measures of mispricing and reconciliation quality. We first discuss how we measure the extent of mispricing.

If investors misprice pro forma earnings, the information contained in pro forma earnings will be systematically correlated with future abnormal returns. Doyle et al. (2003) document that excluded expenses, defined as pro forma earnings minus GAAP earnings, are negatively correlated with future abnormal returns, consistent with investors being misled by pro forma disclosures. Following Doyle et al. (2003), we measure the extent of mispricing using the returns from an arbitrage portfolio, which has a long (short) position in firms with low (high) excluded expenses. If the market misprices pro forma earnings, the return to such an arbitrage portfolio will be significantly positive.

We next discuss how we measure reconciliation quality. We quantify reconciliation quality according to the table below with better reconciliation quality represented by a higher score.

Reconciliations between GAAP earnings and pro forma earnings	Reconciliation score	Ordinal measure of quality
No disclosure of the account names or magnitudes	0	Lowest level
Disclosure of the account names only	1	↓
Disclosure of both the account names and magnitudes	2	
Disclosure of both the GAAP and pro forma income statements	3	
Disclosure of a reconciliation table between GAAP and pro forma earnings	4	Highest level

As the above table illustrates, if an earnings release does not provide any reconciliation information, the reconciliation quality variable takes a value of zero. If the earnings release provides the names of the accounts that account for the difference between the GAAP and pro forma earnings numbers but it does not also specify their magnitudes, then the reconciliation quality variable equals one. If, in addition, the release specifies the magnitudes, then this variable takes the value two. Although the magnitude is mentioned, the information provided may not completely explain the difference between pro forma and GAAP earnings. If the earnings release contains both a pro forma income statement and a GAAP income statement, the reconciliation quality variable equals three. Finally, if the earnings release explicitly provides a table that reconciles the GAAP earnings with the pro forma earnings, the reconciliation quality variable takes the value four, the highest score.

We note that the earnings release fully articulates the difference between GAAP and pro forma earnings when the disclosure quality score is either three or four. However, we choose to make a distinction between these two forms of disclosure because behavioral studies suggest that the format in which the information is presented affects investors' judgments (e.g., Elliott, 2006). A reconciliation score of four indicates that it is easier for investors to make a direct comparison between pro forma earnings and GAAP earnings, compared with the score of three. Appendix A provides examples of different reconciliation quality scores.²

3. Pre-Reg G analysis

To examine whether better reconciliations mitigate mispricing associated with pro forma disclosures, we use data prior to Reg G, a period when there is meaningful cross-sectional variation in reconciliation quality due to the lack of relevant regulations. As reconciliation quality is at the discretion of management prior to Reg G, many factors may affect firms' reconciliation decisions. For example, firms with more institutional holdings may provide higher quality reconciliations in response to demands from institutional investors. This raises the concern that the relationship between mispricing and observed reconciliation quality may be driven by those underlying factors.

² Some complexities arise in the coding process. For example, if the difference between GAAP and pro forma earnings concerns only one account and the account name is mentioned, we code it not as one, but as two, because the magnitude can be easily inferred by comparing the two earnings numbers. However, such observations account for only a small proportion of our sample (1.5%), and eliminating them does not have any effect on our results.

To alleviate this concern, we use a measure of reconciliation quality after controlling for its determinants. Specifically, we build a model that explains reconciliation quality, and the residual from this model, i.e., the residual reconciliation quality, is the measure we use. We investigate whether there is less mispricing for firms with high residual reconciliation quality. Affirmative evidence would support the notion that better reconciliations mitigate the mispricing of pro forma earnings.

3.1 The determinants of reconciliation quality

In identifying the determinants of reconciliation quality, we borrow largely from the literature on voluntary disclosures and recent studies on pro forma disclosures. Prior literature finds that voluntary disclosures are affected by the value-relevance of GAAP earnings (Chen et al., 2002; Tasker, 1998; Lang and Lundholm, 1993; Lennox and Park, 2006), managerial incentives (Schrand and Walther, 2000; Lougee and Marquardt, 2004; Bowen et al., 2005), and investor sophistication (Bowen et al., 2005). To the extent that reconciliations prior to Reg G are voluntary, we expect those factors to be correlated with reconciliation quality. We also expect reconciliation quality to be affected by the characteristics of pro forma adjustments, such as the type, the magnitude, and the total number of items excluded from pro forma earnings.

To summarize, our model is specified as follows:

$$\begin{aligned}
 LOGRECONCILE = & \alpha_0 + \alpha_1 PRLOSS + \alpha_2 STDROA + \alpha_3 HITECH + \alpha_4 LOSS \\
 & + \alpha_5 EMPHASIS + \alpha_6 REVERSELOSS + \alpha_7 REVERSEMIS + \alpha_8 NUMEST \\
 & + \alpha_9 INSTOWN + \alpha_{10} LOGASSETS + \alpha_{11} ABSDIFF + \alpha_{12} LOGTOTALNUM \\
 & + \sum \delta_k TYPE(k) + \varepsilon
 \end{aligned} \tag{1}$$

where

LOGRECONCILE is the logged value of one plus the raw reconciliation quality score.

PRLOSS (the frequency of prior losses), *STDROA* (earnings variability), *HITECH*

(membership in a high-tech industry), and *LOSS* (current losses) are four measures of the value-relevance of GAAP earnings. Higher value of the four variables indicates lower value-relevance which, according to prior literature, predicts a higher quality of reconciliations. Thus the predicted sign is positive on the four variables.

EMPHASIS, *REVERSELOSS* and *REVERSEMIS* are proxies for managerial incentives to emphasize pro forma earnings, report positive earnings and beat analysts' forecasts, respectively. On one hand, managerial strategic incentives may lead to low quality of reconciliations in an attempt to avoid scrutiny from investors. On the other hand, managers may provide high quality of reconciliations to convince investors of the superiority of pro forma numbers as a performance measure. We thus do not have any prediction on the sign on the three variables.

NUMEST (the number of analysts that follow the firm) and *INSTOWN* (the percentage ownership of institutional investors) are proxies for investor sophistication. Prior literature provides evidence that managers provide more voluntary disclosures when faced with pressures from institutional investors. Thus we predict a positive sign on the two variables.

LOGASSETS is the natural log of total assets. Bigger firms are under more scrutiny from investors and the media and they are more likely to provide higher quality of reconciliations. The predicted sign is positive.

ABSDIFF is the absolute value of pro forma earnings per share minus GAAP earnings per share deflated by total assets per share. A greater deviation of pro forma earnings from GAAP earnings warrants more detailed explanations. Thus, we predict a positive sign.

LOGTOTALNUM is the natural log of the total number of adjustments between GAAP earnings and pro forma earnings. We predict a positive sign because investors may demand higher quality of reconciliations when there are many pro forma adjustments.

TYPE (k) refers to the dummies representing eleven types of pro forma adjustment.³ Appendix B provides detailed definitions for each variable. We include the types of adjustment as they may also affect the firm's reconciliation decision.

3.2 Sample formation and descriptive statistics

We manually collect the press releases related to pro forma earnings. Following Bhattacharya et al. (2003) and Lougee and Marquardt (2004), we search PR Newswire and Business Wire⁴ in the Lexis-Nexis Academic Universe database using the following keywords: “pro forma,” “proforma,” or “pro-forma.”⁵ Similar to Lougee and Marquardt (2004), we

³ Bhattacharya et al. (2003) classify pro forma adjustments into eight types. We augment their classification by including three additional types: *INTANGAMORT*, *RESTRUCT*, and *IMPAIR*, which represent, respectively, pro forma adjustments related to amortization of intangibles and goodwill, restructuring charges, and write-offs due to asset impairment.

⁴ Firms have many channels through which they may communicate with financial analysts and the public. Thus, to the extent that firms may issue reconciliations through channels other than press releases, our results may suffer from selection bias. However, it is not clear that this bias would have a large effect on our results. For instance, if firms use the same reconciliation approach across the various channels, this concern is unlikely to affect our results.

⁵ While some companies use terms other than “pro forma,” “pro-forma,” or “proforma” to describe their non-GAAP earnings metrics (Bradshaw, 2003), we adopt this particular search string for three reasons. First, we are unaware of any reason the use of “pro forma” as the search keyword would introduce a systematic bias into our

exclude those press releases in which: (a) the pro forma earnings data correspond to a quarter other than the current quarter; (b) the use of the term “pro forma” refers solely to the retroactive effect of an initial public offering, merger, or acquisition; or (c) the use of pro forma earnings reflects a change in tax status, capital structure, or accounting method. In addition, we require non-missing CUSIP and PERMNO information, and we require that the earnings announcement date in Compustat match our press release date.

In December 2001, the SEC cautioned public companies not to mislead investors when providing non-GAAP information. Given that public firms were aware of the SEC’s stance on pro forma earnings disclosures after the SEC’s warning, they could have reasonably anticipated and prepared for the issuance of Reg G. Accordingly, our pre-Reg G sample period is restricted to the period prior to the SEC’s warning.⁶ The final sample consists of 2,934 press releases for 1,147 firms between January 1998 and December 2001.

Figure 1 depicts the frequency distribution of the reconciliation quality score among the 2,934 pro forma press releases in our sample. With only a few exceptions (19 press releases, or 0.65% of the sample), almost all pro forma press releases provide some type of reconciliation between GAAP and pro forma earnings. In particular, 18% provide account names but no magnitudes, 32% reveal both the account names and magnitudes, 40% disclose both GAAP and pro forma income statements, and 9% provide a reconciliation table.

analysis. Second, searching with the keyword “pro forma” appears to be an efficient way to identify non-GAAP earnings releases, as “pro forma” is the most frequently used label in both the pre- and post-Reg G periods (Yi, 2007). Third, from a practical standpoint, it would be prohibitively expensive and time-consuming to adopt more general search criteria. We attempt to gauge the impact of this sample limitation on our analysis by adopting more general search criteria from Wallace (2002) for 1999 and repeating our pre-Reg G analysis on this larger sample. We obtain similar results.

⁶ Our results hold, however, when the pre-Reg G sample period is extended to December 2002.

Table 1 reports the frequency distribution and mean reconciliation score of the sample by year, exchange, and industry. Panel A shows that the number of pro forma press releases has increased steadily from 282 in 1998 to 1,623 in 2001. This increasing pattern is consistent with the previous literature (Bhattacharya et al., 2004). The mean reconciliation score ranges from 2.23 in 1998 to 2.48 in 2000. Panel B indicates that about 84% of the press releases are from firms listed on the NASDAQ exchange. The mean reconciliation score ranges from 2.38 for NASDAQ firms to 2.64 for AMEX firms. Finally, Panel C shows that the industry distribution of our sample is similar to that of Lougee and Marquardt (2004), with a relatively high concentration in high-tech and intangible-intensive industries (our industry definitions follow Francis and Schipper (1999) and Collins et al. (1997)).

Panel A of Table 2 presents descriptive statistics on the pro forma adjustment categories during the pre-Reg G period. The most common adjustment is *INTANGAMORT* (intangible amortization) with 46.3% of the press releases making this type of adjustment, while *EXTRADISC* (extraordinary items and discontinued operations) is the least popular, with only 5.1% of the press releases making this type of adjustment.

Panel B provides descriptive statistics for the other variables. Consistent with the prior literature (e.g., Lougee and Marquardt, 2004), we find that there is a high concentration of high-tech firms. Specifically, the mean value of *HITECH* reveals that 63.1% of the press releases are related to firms in high-tech industries. We also find that firms are more likely to emphasize pro forma earnings relative to GAAP earnings. The mean value of *EMPHASIS* shows that 81.5% of the press releases emphasize pro forma earnings.⁷

⁷ About 18% of the sample emphasizes GAAP earnings despite also reporting pro forma earnings. Bowen et al. (2005) suggest that firms tend to emphasize the earnings metric that is more value-relevant and portrays more

3.3 The determinant model results

To obtain the residual measure of reconciliation quality, we estimate the determinant model of reconciliation quality as specified in Section 3.1. Our final sample consists of 1,900 pro forma press releases from 1998-2001 because we require all the variables in the determinant model to be non-missing. Table 3 reports the estimation results. The reported t -statistics are based on standard errors clustered by firm and fiscal quarter to account for time-series and cross-sectional dependence in the error terms.

Consistent with our predictions, the coefficients on *STDROA*, *HITECH*, *LOGASSETS* and *LOGTOTALNUM* are positive and significant, indicating that firms tend to provide better reconciliations when GAAP earnings are volatile, when they are in high-tech industries, when they are large in size and when pro forma adjustments involve many items. The positive coefficients on *EMPHASIS* and *REVERSELOSS* suggest that reconciliation quality is higher when pro forma earnings are emphasized in the press release and when pro forma adjustments turn GAAP losses into pro forma profits. The negative coefficient on *LOSS* is inconsistent with our prediction. A potential explanation is that loss firms are more opportunistic and therefore provide lower reconciliation quality. As for the specific types of pro forma adjustments, we find that reconciliation quality is positively related to intangible amortizations (*INTANGAMORT*), R&D, and assets impairment (*IMPAIR*), while negatively related to adjustments in stock compensation costs (*STOCKCOMP*), restructuring charges (*RESTRUCT*), unclassified other categories (*OTHERS*), and the number of shares used in computing pro forma earnings (*SHARES*).

favorable firm performance. Based upon their findings, it is likely that firms decide to emphasize GAAP earnings because investors perceive GAAP earnings as more value relevant or because GAAP earnings are higher than pro forma earnings.

3.4 Main results

In this section, we provide evidence on the relation between mispricing and reconciliation quality.

We first obtain the residual from the reconciliation quality equation as specified in Section 3.1. This residual variable essentially measures reconciliation quality after controlling for its various determinants. We then form two equal-sized groups. The high (low) group consists of observations with residual reconciliation quality values above (below) the median. For both groups, we form three terciles every month according to pro forma exclusions (*DIFF*) and construct an arbitrage portfolio by buying stocks in the low *DIFF* portfolio and shorting stocks in the high *DIFF* portfolio, with all portfolios being held for one year.⁸ *DIFF* measures pro forma exclusions and is computed as pro forma earnings minus GAAP earnings deflated by total assets.⁹ The abnormal returns of the arbitrage portfolios measure the extent of mispricing. If better reconciliations reduce mispricing, the abnormal return should be smaller for the arbitrage portfolio formed within the group that has high residual reconciliation quality.

The abnormal returns of portfolios are estimated by running calendar-time three-factor regressions (Fama and French, 1993). Our regression model is as follows:

$$R_{pt} - R_{ft} = a + b[R_{mt} - R_{ft}] + sSMB_t + hHML_t + \varepsilon_t \quad (2)$$

⁸ We deal with delisting-related missing returns as follows: we assume that the return for the delisting month is equal to the monthly delisting return reported in the CRSP monthly event file, while the returns for the subsequent months are equal to the returns on the value-weighted index of NYSE, AMEX, and NASDAQ stocks. This treatment essentially assumes that the investment is liquidated after the delisting date and the proceeds are subsequently invested in a market portfolio.

⁹ Following Doyle et al. (2003), we define GAAP earnings as earnings per share before extraordinary items and discontinued operations, using either basic (data item #19) or diluted (data item #9) earnings figures, depending on whether pro forma earnings are reported on a basic or diluted basis.

where R_{pt} is the month- t equally weighted return of the portfolio of firms that is formed at the end of month $t-1$; R_{mt} is the return of the value-weighted index of NYSE, AMEX, and NASDAQ stocks in month t ; R_{ft} is the one-month Treasury bill rate in month t ; SMB_t is the return on small firms minus the return on large firms in month t ; and HML_t is the return on high book-to-market stocks minus the return on low book-to-market stocks in month t .

Table 4 reports the three-factor regression results. The intercept term - commonly referred to as “alpha” - measures the abnormal monthly return after controlling for the three risk factors. Panel A reports the results for observations with low residual reconciliation quality. We find that the abnormal return is positive and significant for the low *DIFF* portfolio but is negative and significant for the high *DIFF* portfolio. This finding is consistent with the notion that high *DIFF* firms are over-valued and low *DIFF* firms are under-valued. The arbitrage portfolio with a long position in firms with low *DIFF* and a short position in firms with high *DIFF* yields a positive and significant alpha of 0.010, representing a monthly risk adjusted abnormal return of 1%. This evidence suggests that significant mispricing exists for firms with low residual reconciliation quality. Panel B reports the results for observations with high residual reconciliation quality. None of the three portfolios have significant alphas, providing no evidence of mispricing for firms with high reconciliation quality.

We conduct four robustness checks. First, we test whether our results are driven by observations in year 2001, which was an unusual year for high-tech firms as the internet bubble burst that year. Our results are qualitatively similar after we delete observations from 2001. Second, we test whether our results are sensitive to the choice of number of portfolios. We find that our inferences are the same if we form two instead of three portfolios based on

DIFF. Third, we test whether our results are sensitive to the specification of the determinant model. Specifically, we build a simultaneous equation system, which allows for the possibility that the firm's emphasis decision (i.e., the decision to emphasize GAAP or pro forma earnings) and the firm's reconciliation decision are mutually dependent. Details of the simultaneous equation system are provided in Appendix C. We obtain similar results when we obtain the residual reconciliation quality from the simultaneous equation system. Fourth, to alleviate the concern that firms' reconciliation quality is a proxy for their emphasis decisions, we replicate our analysis on the subsample that emphasizes pro forma earnings. Our results are qualitatively similar to those reported in Table 4.

In sum, our evidence suggests that mispricing of pro forma earnings, documented by prior literature, exists only among firms with low reconciliation quality but not among firms with high reconciliation quality. Our finding is consistent with the notion that high quality reconciliations alleviate mispricing.¹⁰

4. Post-Reg G analysis

4.1 Methodology

¹⁰ We further investigate whether better reconciliations mitigate mispricing through financial analysts. Gu and Chen (2004) document that analysts frequently make adjustments to the pro forma earnings provided in press releases and that the items they include in 'Street' earnings have higher valuation multiples than those they exclude. If the reconciliation's impact on mispricing is through analysts, we would expect that analysts make more informed decisions for firms with better reconciliations, and consequently the included (excluded) components would be more (less) predictive of future operating performance. This leads to the testable hypothesis that the difference in predictability of future operating performance between included and excluded components is less (more) pronounced for firms with low (high) reconciliation quality. Some of our empirical results support this prediction, but the inferences are sensitive to the measure of future operating performance. The results are available upon request.

We conduct two tests involving data after Reg G. We first examine whether pro forma earnings are mispriced after Reg G. Given that Reg G requires high quality reconciliations, evidence of no mispricing after Reg G would be consistent with the results from the pre-Reg G analysis and would support the notion that reconciliations reduce mispricing of pro forma earnings. Second, we use a difference-in-difference approach. Specifically, we compare the changes in mispricing for firms that improve their reconciliation quality after Reg G (improvers) and firms that maintain the same level of reconciliation quality (non-improvers).

The advantages of this difference-in-difference approach are twofold. First, we follow the same firm from the pre-Reg G period to the post-Reg G period, so any significant change in the extent of mispricing cannot be attributed to unobserved firm-specific characteristics. Second, while some factors potentially related to the extent of mispricing – such as the macroeconomic environment, accounting rules (e.g., SFAS 142) and investor confidence in accounting numbers – may change across Reg G, such changes are likely to have the same impact on improvers and non-improvers. Thus, if we observe a significant reduction in mispricing for improvers across Reg G but not for non-improvers, the reduction in mispricing for improvers must be attributed to the improvement in reconciliation quality rather than to any difference in these factors. Essentially, the second advantage of this approach is that non-improvers serve as a control for improvers and effectively control for the many possible changes across Reg G.

Firms are identified as non-improvers if the firm's reconciliation score is *consistently* above two both before and after Reg G, while firms are identified as improvers if the firm's reconciliation score is *consistently* above two after Reg G but not before Reg G. We argue

that there is a difference between the two highest-scoring reconciliation types (i.e., those with a reconciliation score above two) and the remaining types (i.e., those with a reconciliation score no greater than two). First, from an informational perspective, the scores of three and four indicate that the press release fully explains the difference between pro forma earnings and GAAP earnings. Second, the majority of firms deem that these two forms of disclosure satisfy the Reg G requirement, as about 97% of post-Reg G observations reconcile the two earnings numbers using one of these two approaches.¹¹

Within improvers and non-improvers, we form two equal-sized portfolios every month based on *DIFF* and construct an arbitrage portfolio by buying stocks in the low *DIFF* portfolio and shorting stocks in the high *DIFF* portfolio.¹² The high (low) *DIFF* portfolio consists of stocks with *DIFF* higher (lower) than the median. Consistent with other tables in the paper, all portfolios are held for one year.

To capture the across-Reg G change in mispricing, our factor regression model is specified as follows.¹³

$$R_{pt} - R_{ft} = a + dPOSTG + b[R_{mt} - R_{ft}] + sSMB_t + hHML_t + \varepsilon_t \quad (3)$$

In the model above, *POSTG* is equal to 1 when month *t* is after Reg G took effect and 0 otherwise. The intercept term, “*a*”, measures the average monthly abnormal returns in the time period prior to Reg G. The coefficient on *POSTG*, “*d*”, captures the change in the

¹¹ Forty-five observations (3% of the sample) have a reconciliation score equal to two. Of these, thirty-seven cases involve just a single item adjustment.

¹² We form two instead of three portfolios each month, due to the reduced number of observations associated with non-improvers.

¹³ We do not allow the factor loadings to change across Reg G for the following two reasons. First, there is no reason to expect them to change across Reg G. Second, this specification is consistent with a large body of asset pricing literature in which factor loadings are not allowed to vary over time (e.g., Loughran and Ritter, 1995; Carhart, 1997; Cooper et al., 2008).

abnormal returns from the pre-Reg G period to the post-Reg G period with a negative sign indicating a drop in the abnormal returns after Reg G. The sum of the two coefficients, “ $a+d$ ”, measures the abnormal returns for the post-Reg G period.

We run the above factor regression for low *DIFF*, high *DIFF* and arbitrage portfolios separately for improvers and non-improvers. If reconciliation quality reduces mispricing, we expect that the coefficient on *POSTG* is insignificant for the arbitrage portfolio formed within non-improvers but significantly negative for that formed within improvers. In addition, we expect that the coefficient on *POSTG* is significantly different between non-improvers and improvers.

4.2 Main results

Given that our analysis requires observations after Reg G, we collect 1,295 quarterly pro forma earnings announcements released between April 2003 and December 2004, a period during which Reg G was effective. These observations are pooled with the 2,934 pre-Reg G observations as a first step to identify improvers and non-improvers. Requiring non-missing abnormal returns and data for the pre- and post-Reg G periods results in a sample of 1,189 firm-quarter observations, of which 300 observations are associated with 51 non-improvers, and 889 observations pertain to 144 improvers.

The results are reported in Tables 5 and 6. Table 5 reports the calendar-time Fama-French three factor regression results for the 1,295 observations after Reg G. We form terciles each month based on *DIFF* and report the regression results for three portfolios: the low *DIFF* tercile, the high *DIFF* tercile, and an arbitrage portfolio that is long in the low

DIFF tercile and short in the high *DIFF* tercile. All three portfolios are held for one year. Consistent with our pre-Reg G analysis, our focus is on the intercept term associated with the arbitrage portfolio, as this measures the extent of mispricing. We find that the intercept term is insignificant. This evidence suggests that there is no mispricing of *DIFF* in the post-Reg G period.

Table 6 reports the results based on the difference-in-difference approach. Panels A and B report the calendar-time Fama-French three-factor regression results for non-improvers and improvers, respectively. For non-improvers, the results show that neither low nor high *DIFF* portfolios exhibit significant abnormal returns prior to Reg G. The coefficient on *POSTG* reveals that there is no significant change in the abnormal return after Reg G for both portfolios. The same is true for the arbitrage portfolio. Our results thus suggest that there is no change in the extent of mispricing across Reg G for firms that consistently have high reconciliation quality.

For improvers, results show that prior to Reg G, firms with high *DIFF* exhibit negative abnormal returns. This finding is consistent with the notion that those firms are over-priced when pro forma earnings are disclosed and the subsequent correction leads to negative abnormal returns. The arbitrage portfolio exhibits positive and significant monthly abnormal returns of 1.8% prior to Reg G. The coefficient on *POSTG* is negative and significant at the 5% level, suggesting that there is a significant cross-Reg G reduction in the mispricing of pro forma earnings for improvers.

In the row immediately below Panel B, we report the p-value associated with testing whether for arbitrage portfolios, the coefficient on *POSTG* is significantly different between

improvers and non-improvers.¹⁴ Our two-sided *t*-test yields a p-value of 0.06, suggesting that the across-Reg G change in the extent of mispricing is significantly different across improvers and non-improvers.

Finally, we test whether after Reg G, the arbitrage portfolio yields significant abnormal returns for both improvers and non-improvers. The p-values are 0.55 and 0.28, respectively, suggesting that there is no evidence of mispricing after Reg G. This finding is consistent with the results in Table 5.

In sum, the evidence presented in Table 6 suggests that there is a significant reduction in mispricing for firms whose reconciliation quality improves, but there continues to be no mispricing for firms whose reconciliation quality is consistently high both before and after Reg G. Our evidence is consistent with the notion that better reconciliations reduce the extent of mispricing. To the extent that Reg G requires more informative reconciliations, our evidence suggests that Reg G has helped to curb the mispricing associated with pro forma earnings.

5. Alternative explanations

In a related paper, Kolev et al. (2008) document a significant change in the quality of the items excluded from pro forma earnings after Reg G. Their study raises the possibility that

¹⁴ Specifically, we introduce a dummy, *IMPROVE*, which is equal to 1 for arbitrage portfolios formed within improvers and 0 for arbitrage portfolios formed within non-improvers, and interact this variable with all variables (including the intercept term) in the factor regression specified above. This is to allow all coefficients to vary between improvers and non-improvers. If the across-Reg G change in the extent of mispricing is significantly different across improvers and non-improvers, we expect the coefficient on the interaction term, *IMPROVE*POSTG*, to be significantly different from zero.

our results are explained by changes in the quality of excluded items instead of changes in the quality of reconciliations per se.

To address this concern we examine whether the quality of excluded items and reconciliation quality are correlated. Following Kolev et al. (2008), we measure the quality of excluded items by their ability to predict future operating income. Specifically, in the analysis related to our pre-Reg G sample, we model future operating income (*FOI*), defined as operating income per share accumulated over the four quarters following the current quarter, as a linear function of *pro forma EPS*, *DIFF*, *REC DUM*, and the interaction between *REC DUM* and *DIFF*.¹⁵ *REC DUM* is coded as one if the reconciliation is of low quality (i.e., residual reconciliation quality is below the median), and zero otherwise. Kolev et al. (2008) document that future operating income is positively related to pro forma EPS and negatively related to pro forma excluded items. We therefore predict that the coefficient on *pro forma EPS* is positive and the coefficient on *DIFF* is negative. Our focus is however on the interaction term: *REC DUM*DIFF*. An insignificant coefficient indicates that there is no significant difference in the quality of excluded items between firms with high residual reconciliation quality and those with low residual reconciliation quality, alleviating the concern that our pre-Reg G results are driven by the quality of excluded items.

For our cross-Reg G analysis, we model *FOI* as a linear function of *pro forma EPS*, *DIFF*, *POSTG*, and an interaction term between *POSTG* and *DIFF*, and we estimate this model separately for improvers and non-improvers. If the coefficient on the interaction term is insignificant, this would suggest no significant change in the quality of excluded items

¹⁵ We also tried future operating cash flows as an alternative dependent variable following Doyle et al. (2003) and obtained similar results.

subsequent to Reg G and alleviate the concern that our results are attributable to the effect of Reg G on the quality of excluded items.

To maintain consistency with our prior results, we start with the same sample used in prior analyses. Specifically, for the pre-Reg G analysis, our initial sample consists of 1,900 pro forma earnings disclosures; for the cross-Reg G analysis, our initial sample consists of 1,189 pro forma disclosures, of which 300 observations are associated with non-improvers and 889 observations are associated with improvers. We further require future operating income for four consecutive quarters after the pro forma disclosure. To avoid the influence of outliers, we truncate all continuous variables at the top and bottom one percentile. Our final sample consists of 1,616 observations for the pre-Reg G analysis and 1,077 observations for the cross-Reg G analysis, of which 281 observations are associated with non-improvers and 796 are associated with improvers.

The results are reported in Table 7. To account for time-series and cross-sectional dependence in the error terms, the standard errors are clustered by firm and fiscal quarter (Petersen, 2009). Panel A reports the results for the pre-Reg G analysis; Panels B and C report the cross-Reg G results separately for improvers and non-improvers. As predicted, in all three panels, the coefficient on *Pro forma EPS* is consistently positive while that on *DIFF* is consistently negative. More importantly, we find that the coefficient on the interaction between *REC DUM* and *DIFF* is not significant (Panel A) and that the coefficients on the interaction between *POSTG* and *DIFF* are also insignificant for both non-improvers (Panel B) and improvers (Panel C). These results suggest no significant change in the quality of

excluded items subsequent to Reg G.¹⁶ They also suggest no significant change in the quality of excluded items between firms with high and low reconciliation quality. These findings alleviate the concern that our results are due to the quality of excluded items.

6. Conclusions

Reg G requires that companies reconcile non-GAAP earnings with the most comparable GAAP earnings number. The SEC argues that such reconciliations should reduce the mispricing caused by pro forma earnings.

We provide three pieces of evidence that are consistent with the notion that reconciliations reduce mispricing associated with pro forma earnings. First, using data prior to Reg G and controlling for a host of variables that affect firms' reconciliation quality, we find that mispricing exists in firms with low reconciliation quality but not in firms with high reconciliation quality. Second, we find no evidence that pro forma earnings are mispriced after Reg G. Third, we find that there is reduction of mispricing for firms that improve reconciliation quality across Reg G, but there continues to be no mispricing for firms that consistently have high reconciliation quality.

In sum, our results suggest that Reg G has been effective in curbing mispricing, and they support the SEC's claim that reconciliations result in more accurate pricing of securities.

¹⁶ Our results are based on a different sample from that used in Kolev et al. (2008). We use pro forma earnings from actual press releases, while Kolev et al. (2008) use I/B/E/S actual earnings as a proxy for pro forma earnings. Firms with I/B/E/S coverage do not necessarily make pro forma earnings disclosures and conceivably they have different characteristics, such as industry membership, institutional ownership, value-relevance of GAAP earnings, etc. In addition, our sample requires pro forma earnings disclosures both before and after Reg G, while the Kolev et al. (2008) study does not impose this requirement. These sample differences may explain the difference in results.

Our paper contributes to both the literature on pro forma disclosures and the literature on the consequences of securities regulations.

References

- Bhattacharya, N., Black, E.L., Christensen, T.E., Larson, C.R., 2003. Assessing the relative informativeness and permanence of pro forma earnings and GAAP operating earnings. *Journal of Accounting and Economics* 36, 285-319.
- Bhattacharya, N., Black, E.L., Christensen, T.E., Mergenthaler, R.D., 2004. Empirical evidence on recent trends in pro forma reporting. *Accounting Horizons* 18, 27-43.
- Bowen, R.M., Davis, A.K., Matsumoto, D.A., 2005. Emphasis on pro forma versus GAAP earnings in quarterly press releases: Determinants, SEC intervention, and market reactions. *The Accounting Review* 80, 1011-1038.
- Bradshaw, M., 2003. A discussion of 'Assessing the relative informativeness and permanence of pro forma earnings and GAAP operating earnings.' *Journal of Accounting and Economics* 36, 321-335.
- Carhart, M. M., 1997. On persistence in mutual fund performance. *Journal of Finance* 52, 57-82.
- Chen, S., DeFond, M., Park, C., 2002. Voluntary disclosure of balance sheet information in quarterly earnings announcements. *Journal of Accounting and Economics* 33, 229-251.
- Collins, D., Maydew, E., Weiss, I., 1997. Changes in the value-relevance of earnings and book values over the past forty years. *Journal of Accounting and Economics* 24, 39-67.
- Cooper, M. J., Gulen, H., Schill, M. J., 2008. Asset growth and the cross-section of stock returns. *Journal of Finance* 63, 1609-1651.
- Doyle, J.T., Lundholm, R.J., Soliman, M.T., 2003. The predictive value of expenses excluded from pro forma earnings. *Review of Accounting Studies* 8, 145-174.
- Elliott, B.W., 2006. Are investors influenced by pro forma emphasis and reconciliation in earnings announcements? *The Accounting Review* 81, 113-133.
- Fama, E., French, K., 1993. Common risk factors in the returns on stocks and bonds. *Journal of Financial Economics* 33, 3-56.
- Fama, E., French, K., 1997. Industry costs of equity. *Journal of Financial Economics* 43, 153-193.

- Francis, J., Schipper, K., 1999. Have financial statements lost their relevance? *Journal of Accounting Research* 37, 319–352.
- Frederickson, J., Miller, J., 2004. The effects of pro forma earnings disclosures on analysts' and nonprofessional investors' equity valuation judgment. *The Accounting Review* 79, 667-686.
- Gu, Z., Chen, T., 2004. Analysts' treatment of non-recurring items in street earnings. *Journal of Accounting and Economics* 38, 129-170.
- Heflin, F., Hsu, C., 2008. The impact of the SEC's regulation of non-GAAP disclosures. *Journal of Accounting and Economics* 46, 349-365.
- Kolev, K., Marquardt, C., McVay, S., 2008. SEC scrutiny and the evolution of non-GAAP reporting. *The Accounting Review* 83, 157-184.
- Lang, M., Lundholm, R., 1993. Cross-sectional determinants of analyst rating of corporate disclosure. *Journal of Accounting Research* 31, 246-272.
- Lennox, C., Park, C., 2006. The informativeness of earnings and management's issuance of earnings forecasts. *Journal of Accounting and Economics* 42, 439-458.
- Lougee, B., Marquardt, C., 2004. Earnings quality and strategic disclosure: An empirical examination of "pro forma" earnings. *The Accounting Review* 79, 769-795.
- Loughran, T., Ritter, J. R., 1995. The new issues puzzle. *Journal of Finance* 50, 23-51.
- Marques, A., 2006. SEC interventions and the frequency and usefulness of non-GAAP financial measures. *Review of Accounting Studies* 11, 549-574.
- Petersen, M.A., 2009. Estimating standard errors in finance panel data sets: Comparing approaches. *The Review of Financial Studies* 22, 435-480.
- Schrand, C., Walther, B., 2000. Strategic benchmarks in earnings announcements: The selective disclosure of prior-period earnings components. *The Accounting Review* 75, 151-177.
- Securities and Exchange Commission (SEC), 2001. Cautionary advice regarding the use of "pro-forma" financial information in earnings releases. Release No. 33-8039, 34-45124, FR-59 (<http://www.sec.gov/rules/other/33-8039.htm>).

Securities and Exchange Commission (SEC), 2002a. SEC brings first pro forma financial reporting case-Trump Hotels charged with issuing misleading earnings release (<http://www.sec.gov/news/headlines/trumphotels.htm>).

Securities and Exchange Commission (SEC), 2002b. Final rule: Conditions for use of non-GAAP financial measures. Release No. 33-8176, 34-47226; FR-65, November 2002 (<http://www.sec.gov/rules/final/33-8176.htm>).

Tasker, S., 1998. Bridging the information gap: Quarterly conference calls as a medium for voluntary disclosure. *Review of Accounting Studies* 3, 137-167.

Wallace, W., 2002. Pro forma before and after the SEC's warning: A quantification of reporting variances from GAAP (FEI Research Foundation, Morristown, NJ).

Yi, H., 2007. Has Regulation G improved the information quality of non-GAAP earnings disclosures? Working Paper, University of Oklahoma.

Appendix A: Examples of different reconciliation scores

1. Reconciliation Score = 0

Copyright 1999 PR Newswire Association, Inc.
PR Newswire
July 29, 1999, Thursday

HEADLINE:

Tuesday Morning Corporation Reports Increase in Second Quarter Profits

BODY:

Tuesday Morning Corporation (Nasdaq: TUES), North America's largest operator of deep-discount closeout home furnishings and gift stores, today reported a significant improvement in its second quarter and first half 1999 operating results.

The Company reported net income of \$2.5 million (\$0.06 per share) on a proforma basis for the quarter ended June 30, 1999, versus a net loss of \$0.7 million (\$0.02 per share) for 1998. Net income for the first half of the year was \$3.5 million (\$0.09 per share) on a proforma basis compared to a net loss of \$1.6 million (\$0.04 per share) in 1998. Net sales grew 27% during the quarter from \$84.8 million to \$107.7 million and 25% for the first half of the year from \$143.6 million to \$179.4 million. Comparable store sales increased 16.4% for the quarter and 15.1% for the year to date.

...

2. Reconciliation Score = 1

Copyright 2001 PR Newswire Association, Inc.
PR Newswire
October 9, 2001, Tuesday

HEADLINE:

E-LOAN, Inc. Reports Pro Forma Profitability and Positive Cash-Flow For Third Quarter 2001; E-LOAN Reports Record Revenues; Achieves Record Mortgage and Home Equity Direct Margin; Purchase Mortgage Business Up 65%; Cash Balance Increases to \$27.2 Million

BODY:

E-LOAN, Inc. (Nasdaq: EELN), (www.eloan.com), a leading online lending company, today reported that it achieved pro forma profitability and positive cash-flow from operations for the first time in the third quarter ended September 30, 2001.

Revenues for the third quarter of 2001 were \$16.9 million, up 88 percent from the \$9.0 million reported in the third quarter of 2000. Pro forma net income for the third quarter of 2001 was \$0.3 million or \$0.01 per share on 53.8 million shares, compared with a pro forma

net loss of (\$8.5) million or (\$0.16) per share on 52.9 million shares during the third quarter of 2000. These results are \$0.06 per share better than the First Call consensus estimate.

...

Pro forma results exclude compensation charges related to the company's stock option plan, amortization of goodwill on the acquisition of CarFinance.com, and amortization of marketing costs related to warrants to purchase the Company's common stock in connection with a marketing agreement. The amortization of marketing costs and goodwill concluded in the second and third quarters of 2001, respectively.

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3. Reconciliation Score = 2

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PR Newswire

October 25, 2001, Thursday

HEADLINE:

Allscripts Reports Third Quarter 2001 Results; Software and Service Revenue Increases 30% Over Prior Year

BODY:

Allscripts Healthcare Solutions, Inc. (Nasdaq: MDRX), the leading provider of point-of-care decision support tools for physicians, announced today its results for the three and nine month periods ended September 30, 2001.

Total revenue for the three months ended September 30, 2001 was \$16.4 million. Software and related service revenue for the three months ended September 30, 2001 increased by 30% from \$3.7 million in 2000 to \$4.8 million in 2001. Prepackaged medication revenue increased by 5% from \$11.1 million in 2000 to \$11.6 million in the third quarter of 2001.

The results of operations include a charge of \$8.6 million related to a restructuring plan announced in July and a non-cash asset impairment charge of \$355.0 million related to acquired intangible assets and related goodwill.

Pro forma net loss, which excludes the restructuring and asset impairment charges described above, as well as amortization of intangibles, net of tax effect, for the third quarter of 2001 was \$11.8 million, or \$0.31 per share compared with a pro forma net loss of \$5.6 million, or \$0.19 per share in the same period last year. Net loss for the third quarter was \$351.9 million, or \$9.26 per share, compared with a loss of \$15.2 million, or \$0.52 per share in the same period last year.

...

4. Reconciliation Score = 3

Copyright 1998 Business Wire, Inc.

Business Wire

July 28, 1998, Tuesday

HEADLINE:

Racing Champions Reports Record 1998 Second Quarter Results

BODY:

...

RACING CHAMPIONS CORPORATION AND SUBSIDIARIES

Consolidated Statements of Income

(Dollars in thousands, except per share data)

	Three months ended June 30		
	1998 Actual (Unaudited)	1998 Pro forma (Unaudited)	1997 Actual (Unaudited)
Net sales	\$ 42,693	\$ 42,693	\$ 24,950
Cost of sales	19,168	19,168	10,628
Gross profit	23,525	23,525	14,322
Selling, general and administrative expenses	13,226	13,226	7,274
Amortization of intangible assets	669	669	554
Merger-related costs	5,525	-	-
Operating income	4,105	9,630	6,494
Interest expense	743	588	2,142
Other expense	39	39	42
Income before income taxes	3,323	9,003	4,310
Income tax expense	1,372	3,644	1,888
Income from continuing operations	1,951	5,359	2,422
Discontinued operations, net of tax benefit of \$ 266 and \$ 428	-	-	1,032
Income before extraordinary item	1,951	5,359	1,390
Extraordinary charge for early extinguishment of debt, net of tax benefit of \$1,188	1,782	-	-
Net income	\$ 169	\$ 5,359	\$ 1,390
EBITDA	\$ 5,545	\$ 11,070	\$ 7,534

5. Reconciliation Score = 4

Copyright 2001 PR Newswire Association, Inc.

PR Newswire

July 26, 2001, Thursday

HEADLINE:

Invitrogen Announces Second Quarter 2001 Results and Executive and Board Changes

BODY:

...

INVITROGEN CORPORATION AND SUBSIDIARIES
PRO-FORMA NET INCOME AND EBITDA INFORMATION
(in thousands, except per share data) (unaudited)

	For the three months ended June 30		For the six months ended June 30	
	2001	2000	2001	2000
Pro-forma Net Income excluding amortization and merger costs, net of tax:				
Net income (Loss)	\$ (35,098)	\$ 4,826	\$ 74,663	\$ 2,959
Add back amortization and merger costs	71,220	205	147,603	6,686
Less related tax benefit	(10,586)	(161)	(23,383)	(325)
Pro-forma Net Income	\$ 25,536	\$ 4,870	\$ 49,557	\$ 9,320
Pro-forma earnings per share:				
Basic	\$ 0.49	\$ 0.21	\$ 0.95	\$ 0.40
Diluted	\$ 0.47	\$ 0.19	\$ 0.92	\$ 0.37
Weighted average shares used in pro-forma diluted earnings per share calculation	53,812	25,282	53,756	25,365

Appendix B: Variable definitions

Variables	Measurement
<i>EMPHASIS</i>	1 if pro forma earnings are mentioned prior to GAAP earnings in the press release, 0 otherwise.
<i>PRLOSS</i>	Number of consecutive quarters of losses over the eight quarters prior to the quarter examined.
<i>STDROA</i>	The standard deviation of ROA (earnings divided by the beginning-of-year total assets) over the prior eight quarters.
<i>HITECH</i>	1 if the firm is in the high-tech industry as defined by Francis and Schipper (1999), 0 otherwise.
<i>LOSS</i>	1 if GAAP earnings are less than zero, 0 otherwise.
<i>REVERSELOSS</i>	1 if pro forma earnings are greater than zero but GAAP earnings are less than zero, 0 otherwise.
<i>REVERSEMIS</i>	1 if pro forma earnings meet or beat the analyst forecast but GAAP earnings miss the analyst forecast, 0 otherwise.
<i>NUMEST</i>	Number of analysts that follow the firm in the month before the earnings announcement.
<i>INSTOWN</i>	Percentage of total shares owned by institutional investors as reported by the Spectrum database for the calendar quarter closest to the earnings announcement date.
<i>LOGASSETS</i>	Natural log of total assets.
<i>LOGMEDCOV</i>	Natural log of the number of articles in which the firm is mentioned in the headline or lead paragraph in the <i>Wall Street Journal</i> , <i>USA Today</i> , <i>New York Times</i> , <i>Time</i> , <i>BusinessWeek</i> , <i>Newsweek</i> , <i>Fortune</i> , and <i>Forbes</i> in the previous calendar year.
<i>DIFF</i>	Pro forma earnings per share minus GAAP earnings per share deflated by total assets per share.
<i>ABSDIFF</i>	Absolute value of <i>DIFF</i> .
<i>LOGTOTALNUM</i>	Natural log of total number of adjustments made between GAAP earnings and pro forma earnings.
<i>DEPRAMORT</i>	Indicator variable for depreciation and amortization costs (excluding amortization of stock-based compensation, intangibles, and goodwill).
<i>INTANGAMORT</i>	Indicator variable for amortization of intangibles and goodwill.
<i>STOCKCOMP</i>	Indicator variable for stock compensation costs.
<i>MERGE</i>	Indicator variable for merger and acquisition costs.
<i>R&D</i>	Indicator variable for research and development (R&D) costs and write-offs of in-process R&D costs.
<i>GAINLOSS</i>	Indicator variable for gains and losses on sales of various assets.
<i>EXTRADISC</i>	Indicator variable for extraordinary items and discontinued operations.
<i>SHARES</i>	Indicator variable for adjustment to the number of shares used in the denominator of the EPS calculation.
<i>RESTRUCT</i>	Indicator variable for restructuring charges.
<i>IMPAIR</i>	Indicator variable for write-offs due to asset impairment (including goodwill impairment).
<i>OTHER</i>	Indicator variable for all other adjustments.

Appendix C: The simultaneous equation system

The firm's reconciliation decision may be affected by the firm's emphasis decision (i.e., the decision to emphasize GAAP or pro forma earnings), while the firm's emphasis decision may in turn be affected by the firm's reconciliation decision. To deal with the endogeneity issue, we build a simultaneous equation system, which consists of two equations.¹⁷ One equation explains the firm's reconciliation decisions and includes variables discussed in Section 3.1. The other equation explains the firm's emphasis decision and, following Bowen et al. (2005), includes the value-relevance of GAAP earnings, managerial incentives, investor sophistication, media coverage, excluded expenses, and reconciliation quality as independent variables.

The *residual reconciliation quality* is the residual from the equation where reconciliation quality is the dependent variable. It is orthogonal to all the independent variables and essentially measures reconciliation quality after controlling for its various determinants. Our simultaneous equation system is as follows:

$$\begin{aligned} LOGRECONCILE = & \alpha_0 + \alpha_1 EMPHASIS + \alpha_2 PRLOSS + \alpha_3 STDROA + \alpha_4 HITECH \\ & + \alpha_5 LOSS + \alpha_6 REVERSELOSS + \alpha_7 REVERSEMIS + \alpha_8 NUMEST \\ & + \alpha_9 INSTOWN + \alpha_{10} LOGASSETS + \alpha_{11} ABSDIFF + \alpha_{12} LOGTOTALNUM \\ & + \sum \delta_k TYPE(k) + \varepsilon \end{aligned} \quad (1)$$

$$\begin{aligned} EMPHASIS = & \beta_0 + \beta_1 LOGRECONCILE + \beta_2 PRLOSS + \beta_3 STDROA + \beta_4 HITECH \\ & + \beta_5 REVERSELOSS + \beta_6 REVERSEMIS + \beta_7 NUMEST + \beta_8 INSTOWN \\ & + \beta_9 LOGMEDCOV + \beta_{10} DIFF + \mu \end{aligned} \quad (2)$$

where

LOGRECONCILE is the logged value of one plus the raw reconciliation quality score;

¹⁷ Given this endogeneity issue, an OLS regression will yield biased coefficient estimates.

EMPHASIS is a dummy variable equal to 1 if pro forma earnings are mentioned prior to GAAP earnings in the press release, 0 otherwise;

PRLOSS (the frequency of prior losses), *STDROA* (earnings variability), *HITECH* (membership in a high-tech industry), and *LOSS* (current losses) are four measures of the value-relevance of GAAP earnings;

REVERSELOSS and *REVERSEMIS* are proxies for managerial incentives to report positive earnings and beat analysts' forecasts, respectively;

NUMEST (the number of analysts that follow the firm) and *INSTOWN* (the percentage ownership of institutional investors) are proxies for investor sophistication;

LOGASSETS is the natural log of total assets;

LOGMEDCOV (media coverage) is the natural log of the number of articles in the mainstream media that mentioned the firm in the headline or lead paragraph in the previous calendar year;

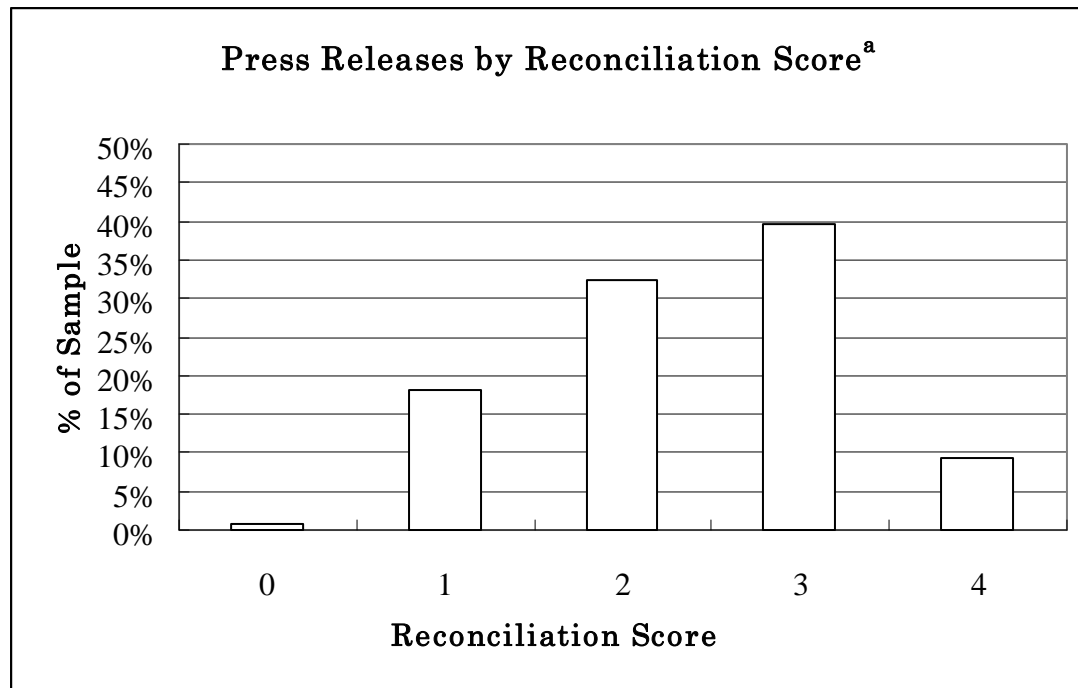
DIFF is pro forma earnings per share minus GAAP earnings per share deflated by total assets per share, and *ABSDIFF* is the absolute value of *DIFF*;

LOGTOTALNUM is the natural log of the total number of adjustments made between GAAP earnings and pro forma earnings; and

TYPE (*k*) refers to the dummies representing pro forma adjustment types. There are 11 dummies: *DEPRAMORT*, *INTANGAMORT*, *STOCKCOMP*, *MERGE*, *R&D*, *GAINLOSS*, *EXTRADISC*, *SHARES*, *RESTRUCT*, *IMPAIR*, and *OTHERS*.

Appendix B provides more detailed variable definitions.

Figure 1
Distribution of reconciliation quality for the sample of 2,934 pre-Reg G pro forma press releases from 1998-2001



^a Reconciliation scores are defined as follows:

- 0 –No disclosure of account names or magnitudes
- 1 –Disclosure of account names only
- 2 –Disclosure of both account names and magnitudes
- 3 –Provision of both GAAP income statement and pro forma income statement
- 4 –Provision of a reconciliation table between GAAP and pro forma earnings

Table 1
Distribution of 2,934 pre-Reg G pro forma press releases by year, stock exchange, and industry from 1998-2001

Panel A: Distribution of pro forma earnings releases by year			
Year	# of Press Releases	% of Sample	Mean Reconciliation Score
1998	282	9.61%	2.23
1999	274	9.34%	2.41
2000	755	25.73%	2.48
2001	1,623	55.52%	2.38
Total	2,934	100%	2.39

Panel B: Distribution of pro forma earnings releases by stock exchange				
Exchange	# of Press Releases	Mean Reconciliation Score	% of Sample	% of CRSP Firms
NYSE	429	2.45	14.62	31.11%
AMEX	28	2.64	0.95	9.74%
NASDAQ	2,477	2.38	84.42	59.15%
Total	2,934	2.39	100%	100%

Panel C: Distribution of pro forma earnings releases by industry

Industry	# of Press Releases	Mean Score	% of Sample	% of Compustat Firms
Business Services	1308	2.35	44.58%	13.41%
Computers	784	2.52	26.72%	9.12%
Retail	114	2.18	3.89%	4.20%
Pharmaceutical Products	75	2.16	2.56%	4.78%
Wholesale	54	2.39	1.84%	3.28%
Measuring and Control Equipment	51	2.16	1.74%	1.86%
Machinery	49	2.35	1.67%	2.76%
Communication	44	2.20	1.50%	3.83%
Other	41	2.54	1.40%	2.51%
Medical Equipment	33	2.12	1.12%	2.86%
Personal Services	29	2.34	0.99%	0.97%
Trading	28	2.82	0.95%	4.50%
Restaurants, Hotels, Motels	26	2.35	0.89%	1.81%
Electrical Equipment	25	2.48	0.85%	1.23%
Printing and Publishing	21	2.48	0.72%	0.75%
Construction Materials	21	2.62	0.72%	1.50%
Construction	20	2.20	0.68%	1.14%
Chemicals	17	2.00	0.58%	1.47%
Transportation	16	2.38	0.55%	2.03%
Banking	14	2.00	0.48%	9.76%
Healthcare	13	2.23	0.44%	1.47%
Petroleum and Natural Gas	13	2.15	0.44%	3.32%
Entertainment	12	3.08	0.41%	1.77%
Apparel	12	2.75	0.41%	1.13%
Insurance	12	2.00	0.41%	2.66%
Consumer Goods	10	2.50	0.34%	1.49%
Business Supplies	10	2.40	0.34%	1.07%
Agriculture	9	2.33	0.31%	0.26%
Food Products	9	2.67	0.31%	1.29%
Recreation	9	2.33	0.31%	0.86%
Steel Works, Etc.	9	2.89	0.31%	1.25%
Utilities	7	2.71	0.24%	2.80%
Real Estate	7	2.43	0.24%	0.96%
Beer and Liquor	5	3.00	0.17%	0.32%
Rubber and Plastic Products	5	2.20	0.17%	0.85%
Automobiles and Trucks	5	2.00	0.17%	1.20%
Electronic Equipment	5	3.00	0.17%	0.27%
Textiles	3	3.67	0.10%	0.45%
Candy and Soda	2	2.00	0.07%	0.24%
Fabricated Products	2	4.00	0.07%	0.34%
Tobacco Products	1	2.00	0.03%	0.11%
Aircraft	1	2.00	0.03%	0.32%
Non-Metallic and Industrial Metal Mining	1	3.00	0.03%	0.50%

Coal	1	1.00	0.03%	0.07%
Shipbuilding, Railroad Equipment	1	1.00	0.03%	0.27%
Shipping Containers	0	-	0.00%	0.16%
Defense	0	-	0.00%	0.12%
Precious Metals	0	-	0.00%	0.70%
Total	2,934	2.39	100%	100%
High-Technology (High-tech) Firms	1,734	2.42	59.10%	25.75%
Intangible-Intensive Firms	1,979	2.38	67.45%	28.99%

The sample consists of 2,934 pro forma press releases from 1998-2001. Individual industries are as defined in Fama and French (1997). High-tech firms are as defined in Francis and Schipper (1999). Intangible intensive firms are as defined in Collins et al. (1997).

Table 2
Descriptive statistics

<u>Variables</u>	<u>Mean</u>	<u>Std. Dev</u>	<u>Q1</u>	<u>Median</u>	<u>Q3</u>
Panel A: Pro forma adjustment categories					
<i>DEPRAMORT</i>	0.089	0.286	0.000	0.000	0.000
<i>INTANGAMORT</i>	0.463	0.499	0.000	0.000	1.000
<i>STOCKCOMP</i>	0.371	0.483	0.000	0.000	1.000
<i>MERGE</i>	0.247	0.431	0.000	0.000	0.000
<i>R&D</i>	0.156	0.363	0.000	0.000	0.000
<i>GAINLOSS</i>	0.136	0.343	0.000	0.000	0.000
<i>EXTRADISC</i>	0.051	0.219	0.000	0.000	0.000
<i>SHARES</i>	0.071	0.256	0.000	0.000	0.000
<i>RESTRUCT</i>	0.165	0.371	0.000	0.000	0.000
<i>IMPAIR</i>	0.087	0.282	0.000	0.000	0.000
<i>OTHERS</i>	0.445	0.497	0.000	0.000	1.000
Panel B: Other variables					
<i>PRLOSS</i>	1.917	1.833	0.000	1.000	4.000
<i>STDROA</i>	0.091	0.188	0.017	0.036	0.089
<i>HITECH</i>	0.631	0.483	0.000	1.000	1.000
<i>LOSS</i>	0.665	0.472	0.000	1.000	1.000
<i>EMPHASIS</i>	0.815	0.388	1.000	1.000	1.000
<i>REVERSELOSS</i>	0.225	0.418	0.000	0.000	0.000
<i>REVERSEMIS</i>	0.581	0.494	0.000	1.000	1.000
<i>NUMEST</i>	7.226	6.548	3.000	5.000	9.000
<i>INSTOWN</i>	0.424	0.246	0.215	0.392	0.634
<i>LOGASSETS</i>	5.809	1.514	4.698	5.521	6.730
<i>DIFF</i>	0.056	0.230	0.005	0.017	0.045
<i>ABSDIFF</i>	0.061	0.229	0.007	0.019	0.047
<i>LOGTOTALNUM</i>	0.752	0.577	0.000	0.693	1.099

This table presents descriptive statistics for the sample of 1,900 pro forma press releases from 1998-2001, with all the variables non-missing in the reconciliation determinant model as specified in Section 3.1. Panel A reports descriptive statistics for the pro forma adjustment categories. Panel B provides descriptive statistics for the other variables. Appendix B provides detailed variable definitions.

Table 3
Determinants of Reconciliation Quality

<u>Independent Variables</u>	<u>Predicted Sign</u>	Logged Reconciliation Scores (<i>LOGRECONCILE</i>)	
		<u>Coefficient</u>	<u>t-value</u>
<i>Intercept</i>		0.999*	19.41
<i>PRLOSS</i>	+	-0.001	-0.21
<i>STDROA</i>	+	0.062**	2.26
<i>HITECH</i>	+	0.027***	1.94
<i>LOSS</i>	+	-0.056**	-2.04
<i>EMPHASIS</i>		0.063**	2.34
<i>REVERSELOSS</i>		0.048*	3.35
<i>REVERSEMIS</i>		0.010	1.36
<i>NUMEST</i>	+	0.000	-0.04
<i>INSTOWN</i>	+	-0.038	-1.28
<i>LOGASSETS</i>	+	0.023*	3.82
<i>ABSDIFF</i>	+	0.002	0.09
<i>LOGTOTALNUM</i>	+	0.079*	4.79
<i>DEPRAMAORT</i>		-0.030	-1.31
<i>INTANGAMORT</i>		0.041*	3.65
<i>STOCKCOMP</i>		-0.060*	-4.98
<i>MERGE</i>		-0.012	-0.98
<i>R&D</i>		0.037*	3.79
<i>GAINLOSS</i>		-0.021	-0.94
<i>EXTRADISC</i>		-0.002	-0.05
<i>SHARES</i>		-0.178*	-3.85
<i>RESTRUCT</i>		-0.029***	-1.95
<i>IMPAIR</i>		0.061**	2.43
<i>OTHERS</i>		-0.025**	-2.55
N		1900	
Adjusted-R ²		11.41%	

This table reports the coefficient estimates and *t*-statistics from estimating the determinant model of reconciliation quality. *T*-statistics are computed using standard errors clustered by firm and fiscal quarter. The sample consists of 1,900 pro forma press releases from 1998-2001 with all the variables that are non-missing. *LOGRECONCILE* is the logged value of one plus the raw reconciliation score. Raw reconciliation scores range from the lowest quality reconciliations (score=0) to the highest quality reconciliations (score=4). Details on the reconciliation scores are reported in Figure 1. Independent variables are defined in Appendix B. One, two, and three asterisks indicate significance at the 1%, 5%, and 10% levels, respectively, using a two-tailed test.

Table 4**Calendar-time Fama-French three-factor regression results for observations prior to Reg G**

$$R_{pt} - R_{ft} = a + b[R_{mt} - R_{ft}] + sSMB_t + hHML_t + \varepsilon_t$$

Panel A: Results of time-series three-factor regression analysis within the low residual reconciliation quality group

	a	b	s	h	Adjusted-R ²
Low <i>DIFF</i>	0.004*** (1.71)	1.424* (5.93)	0.662* (2.83)	-0.594*** (-1.96)	68.3%
High <i>DIFF</i>	-0.006** (-2.67)	1.464* (7.04)	0.549* (2.71)	-0.586** (-2.23)	73.6%
Arbitrage portfolio (Low <i>DIFF</i> minus High <i>DIFF</i>)	0.010* (4.18)	-0.040 (-0.17)	0.113 (0.50)	-0.008 (-0.03)	-4.83%

Panel B: Results of time-series three-factor regression analysis within the high residual reconciliation quality group

	a	b	s	h	Adjusted-R ²
Low <i>DIFF</i>	0.003 (0.18)	1.787* (5.46)	0.736** (2.35)	-0.503 (-1.23)	60.8%
High <i>DIFF</i>	0.010 (1.00)	1.865* (8.40)	0.730* (3.44)	-0.450 (-1.62)	77.9%
Arbitrage portfolio (Low <i>DIFF</i> minus High <i>DIFF</i>)	-0.007 (-0.56)	-0.078 (-0.27)	0.006 (0.02)	-0.053 (-0.15)	-5.51%

R_{pt} is the equally weighted return of the portfolio of firms in calendar month t ; R_{mt} is the return on the value-weighted index of NYSE, AMEX, and NASDAQ stocks in month t ; R_{ft} is the one month Treasury bill rate in month t ; SMB_t is the return on small firms minus the return on large firms in month t ; and HML_t is the return on high book-to-market stocks minus the return on low book-to-market stocks in month t (Fama and French, 1993). The sample consists of 1,900 press releases from 1998-2001 with sufficient data to estimate the residual reconciliation quality. We first form two equal-sized groups based on the median of residual reconciliation qualities obtained from the reconciliation quality equation in Table 3, with the low (high) group consisting of observations with the value below (above) the median. Within each reconciliation quality group, we form three terciles each month based on *DIFF* and construct an arbitrage portfolio by buying stocks in the low *DIFF* portfolio and shorting stocks in the high *DIFF* portfolio, with all portfolios being held for one year. *DIFF* is computed as pro forma earnings per share minus GAAP earnings per share deflated by total assets per share. Panel A (Panel B) reports portfolio analysis results within the low (high) residual reconciliation quality group. The table reports coefficient estimates, with t -statistics in parentheses. One, two, and three asterisks indicate significance at the 1%, 5%, and 10% levels, respectively, using a two-tailed test.

Table 5**Calendar-time Fama-French three-factor regression results for observations after Reg G**

$$R_{pt} - R_{ft} = a + b[R_{mt} - R_{ft}] + sSMB_t + hHML_t + \varepsilon_t$$

	a	b	s	h	Adjusted- R ²
Low <i>DIFF</i>	-0.008 (-0.50)	1.843* (5.59)	0.688** (2.15)	-0.567 (-1.36)	61.1%
High <i>DIFF</i>	-0.007 (-0.73)	1.788* (8.77)	0.744* (3.75)	-0.473*** (-1.83)	79.5%
Arbitrage portfolio (Low <i>DIFF</i> minus High <i>DIFF</i>)	-0.001 (-0.06)	0.055 (0.19)	-0.056 (-0.20)	-0.094 (-0.26)	-5.07%

R_{pt} is the equally weighted return of the portfolio of firms in calendar month t ; R_{mt} is the return on the value-weighted index of NYSE, AMEX, and NASDAQ stocks in month t ; R_{ft} is the one-month Treasury bill rate in month t ; SMB_t is the return on small firms minus the return on large firms in month t ; and HML_t is the return on high book-to-market stocks minus the return on low book-to-market stocks in month t (Fama and French, 1993). The sample consists of 1,295 press releases between April 2003 and December 2004, a period during which Reg G was effective. Each month, we form three terciles based on *DIFF* and construct an arbitrage portfolio by buying stocks in the low *DIFF* portfolio and shorting stocks in the high *DIFF* portfolio, with all portfolios being held for one year. *DIFF* is computed as pro forma earnings per share minus GAAP earnings per share deflated by total assets per share. The table reports coefficient estimates, with t -statistics in parentheses. One, two, and three asterisks indicate significance at the 1%, 5%, and 10% levels, respectively, using a two-tailed test.

Table 6

Calendar-time Fama-French three-factor regression results for cross-Reg G analysis

$$R_{pt} - R_{ft} = a + dPOSTG + b[R_{mt} - R_{ft}] + sSMB_t + hHML_t + \varepsilon_t$$

Panel A: Results of time-series three-factor regression analysis for non-improvers

	a	d	b	s	h	Adjusted -R ²
(1) Low <i>DIFF</i>	0.002 (0.12)	0.008 (0.34)	1.771* (6.26)	1.020* (3.66)	-0.336 (-0.95)	55.7%
(2) High <i>DIFF</i>	-0.002 (-0.22)	0.001 (0.05)	1.607* (6.89)	0.645* (2.81)	0.172 (0.59)	48.7%
(3) Arbitrage portfolio (Low <i>DIFF</i> minus High <i>DIFF</i>)	0.004 (0.32)	0.007 (0.32)	0.164 (0.63)	0.376 (1.46)	-0.509 (-1.55)	10.8%

Panel B: Results of time-series three-factor regression analysis for improvers

	a	d	b	s	h	Adjusted -R ²
(4) Low <i>DIFF</i>	-0.002 (-0.16)	-0.013 (-0.72)	1.672* (8.04)	0.583* (2.85)	-0.633** (-2.42)	67.7%
(5) High <i>DIFF</i>	-0.020* (-2.88)	0.018 (1.50)	1.803* (12.74)	0.429* (3.08)	-0.701* (-3.94)	82.8%
(6) Arbitrage portfolio (Low <i>DIFF</i> minus High <i>DIFF</i>)	0.018** (2.28)	-0.031** (-2.21)	-0.130 (-0.80)	0.154 (0.95)	0.068 (0.33)	2.8%

p-value (two-tailed) from testing d in (3) = d in (6) 0.06

p-value (two-tailed) from testing $a+d=0$ in (3) 0.55

p-value (two-tailed) from testing $a+d=0$ in (6) 0.28

R_{pt} is the equally weighted return of the portfolio of firms in calendar month t ; R_{mt} is the return on the value-weighted index of NYSE, AMEX, and NASDAQ stocks in month t ; R_{ft} is the one month Treasury bill rate in month t ; SMB_t is the return on small firms minus the return on large firms in month t ; and HML_t is the return on high book-to-market stocks minus the return on low book-to-market stocks in month t (Fama and French, 1993). The full sample consists of 1,189 firm-quarter observations from 1998-2004, of which 300 observations are associated with 51 non-improvers and 889 observations are associated with 144 improvers. Non-improvers are firms whose reconciliation quality is consistently high across Reg G, while improvers are firms whose reconciliation quality improves across Reg G. Within improvers and non-improvers, we form two equal-sized portfolios each month based on *DIFF* and construct an arbitrage portfolio by buying stocks in the low *DIFF* portfolio and shorting stocks in the high *DIFF* portfolio, with all portfolios being held for one year. *DIFF* is computed as pro forma earnings per share minus GAAP earnings per share deflated by total assets per share. The high (low) *DIFF* portfolio consists of stocks with *DIFF* higher (lower) than the median. *POSTG* is a dummy variable that takes the value of 1 if the current month t is after Reg G, and 0 otherwise. Panel A (Panel B) reports

the regression results related to non-improvers (improvers). The table reports coefficient estimates, with t -statistics in parentheses. One, two, and three asterisks indicate significance at the 1%, 5%, and 10% levels, respectively, using a two-tailed test.

Table 7
Regression of future operating income on pro forma EPS and exclusions

Panel A: Regression analysis for Pre-Reg G sample (Number of obs. = 1616, adjusted-R ² = 37.2%)					
<i>Future Operating Income</i> = <i>a</i> + <i>b</i> * <i>Pro forma EPS</i> + <i>c</i> * <i>DIFF</i> + <i>d</i> * <i>REC DUM</i> + <i>e</i> * <i>REC DUM</i> * <i>DIFF</i> + ε					
	a	b	c	d	e
Predicted sign		+	-		
Coefficient estimate	-0.072	2.729*	-0.365	-0.004	0.075
<i>t</i> -statistics	(-7.27)	(12.56)	(-1.54)	(-0.35)	(0.34)
Panel B: Regression analysis for non-improvers (Number of obs. = 281, adjusted-R ² = 44.9%)					
<i>Future Operating Income</i> = <i>a</i> + <i>b</i> * <i>Pro forma EPS</i> + <i>c</i> * <i>DIFF</i> + <i>d</i> * <i>POSTG</i> + <i>e</i> * <i>POSTG</i> * <i>DIFF</i> + ε					
	a	b	c	d	e
Predicted sign		+	-		
Coefficient estimate	-0.034*	2.673*	-0.236	0.035*	0.186
<i>t</i> -statistics	(-3.04)	(7.55)	(-1.36)	(2.65)	(0.71)
Panel C: Regression analysis for improvers (Number of obs. = 796, adjusted-R ² = 42.1%)					
<i>Future Operating Income</i> = <i>a</i> + <i>b</i> * <i>Pro forma EPS</i> + <i>c</i> * <i>DIFF</i> + <i>d</i> * <i>POSTG</i> + <i>e</i> * <i>POSTG</i> * <i>DIFF</i> + ε					
	a	b	c	d	e
Predicted sign		+	-		
Coefficient estimate	-0.081*	2.997*	-0.208	0.084*	0.006
<i>t</i> -statistics	(-4.89)	(11.19)	(-1.35)	(4.64)	(0.04)

This table examines whether the quality of excluded items and the quality of reconciliation are correlated. Panel A performs analysis using our pre-Reg G sample from 1998-2001, and Panels B and C perform analysis using our cross-Reg G sample from 1998-2004. Our final sample consists of 1,616 observations for the pre-Reg G analysis (Panel A) and 1077 observations for the cross-Reg G analysis, of which 281 observations are associated with non-improvers (Panel B) and 796 are associated with improvers (Panel C). Non-improvers (Panel B) are firms whose reconciliation quality is consistently high across Reg G, while improvers (Panel C) are firms whose reconciliation quality improves across Reg G. *Future Operating Income* is the operating income per share (#177) summed over the four quarters starting with quarter *q*+1, scaled by assets per share (#44 / #15). *Pro forma EPS* is pro forma earnings per share in the press release for quarter *q*, scaled by assets per share. *DIFF* is pro forma earnings minus GAAP earnings per share, scaled by assets per share. *REC DUM* is coded as 1 if the reconciliation is of low quality (i.e., the residual reconciliation score is below the median), and 0 otherwise. The residual reconciliation score is obtained from the reconciliation quality equation in Table 3. *POSTG* is coded as 1 if the observation is after Reg G, and 0 otherwise. *T*-statistics reported in parentheses are computed using standard errors clustered by firm and fiscal quarter. One, two, and three asterisks indicate significance at the 1%, 5%, and 10% levels, respectively, using a two-tailed test.