Advances in Accounting, incorporating Advances in International Accounting xxx (2013) xxx–xxx

Contents lists available at ScienceDirect

Advances in Accounting, incorporating Advances in International Accounting

journal homepage: www.elsevier.com/locate/adiac

# Pro forma accounting disclosures: The effect of reconciliations and financial reporting knowledge on nonprofessional investors' judgments

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ARTICLE INFO

Available online xxxx

*Keywords:*
Pro forma earnings
Nonprofessional investors
Regulation G
Information presentation

ABSTRACT

Regulation G requires companies that report non-GAAP or "pro forma" earnings provide a reconciliation. While nonprofessional investors are a large, heterogeneous population with varying degrees of financial reporting knowledge, previous research treats them as a homogenous group. The study examines how differences in financial reporting knowledge and information viewing behavior affect the influence of reconciled pro forma earnings disclosures on nonprofessional investors' judgments. Lower-knowledge investors appear to incorporate information on differences between GAAP and pro forma earnings in their judgments as long as they view this information in the reconciliation. However, higher-knowledge investors appear to consistently incorporate information on differences between GAAP and pro forma earnings in their judgments regardless of the relative amount of time they spend viewing the reconciliation relative to other disclosures. Our results suggest that knowledge differences influence how nonprofessional investors acquire and use information on differences between GAAP and pro forma earnings.



## 1. Introduction

Companies often present non-GAAP, or "pro forma" accounting information in their earnings press releases (Campbell & Pitman, 2009; Zhang & Zheng, 2011). To calculate pro forma earnings, management adjusts GAAP earnings for non-recurring items it deems transitory or not predictive of future cash flows (Alpert, 2001; Bowen, Davis, & Matsumoto, 2005). The SEC issued Regulation G, which requires companies to provide a pro forma-to-GAAP reconciliation (SEC, 2003) because of concerns that investor judgments might be unduly influenced by pro forma reports (SEC, 2001). Indeed, experimental studies indicate that pro forma disclosures may influence nonprofessional investors' judgments through unintentional cognitive effects (Elliott, 2006; Frederickson & Miller, 2004). Almost ten years after the implementation of Regulation G, security regulators, accounting researchers, and the financial press still devote attention to examining the effectiveness of required pro forma-to-GAAP earnings reconciliations (Brown, Christensen, Elliott, & Mergenthaler, 2012; Chasan, 2012; Chen, Krishnan, & Pevzner, 2012; Leone, 2010),

We extend prior research by examining whether differences in financial reporting knowledge and information viewing behavior among nonprofessional investors affect the influence of reconciled pro forma earnings disclosures on these investors' judgments. Prior studies on the influence of pro forma disclosures on investor judgments (e.g., Elliott, 2006; Frederickson & Miller, 2004) treat nonprofessional investors as a homogenous group; however, these investors are a large, heterogeneous population with varying degrees of financial reporting knowledge (Elliott, Hodge, & Jackson, 2008). Previous research does not address whether the influence of either (1) pro forma disclosures, or (2) their reconciliation to GAAP, varies across nonprofessional investors as a function of differences in financial reporting knowledge within this group.

Elliott (2006) finds that the presence of a quantitative reconciliation mitigates the influence of pro forma earnings disclosures on nonprofessional investors' judgments. Presumably, this occurs because the reconciliation repackages information on differences between GAAP and pro forma earnings into a format that makes it easier for nonprofessional investors to acquire and incorporate into their judgments (Hodge, Kennedy, & Maines, 2004; Russo, 1977). We argue, however, that there are dissimilarities in the way that nonprofessional investors might acquire this information. Elliott's (2006) results suggest that investors acquire the information on non-recurring items from the pro forma-to-GAAP reconciliation. Alternately, investors may adjust pro forma earnings by acquiring information on non-recurring items from other sections of the financial reports, such as the earnings press release or the footnotes to a pro forma income statement. We argue that the efficacy of these viewing behaviors for acquiring

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0882-6110/$ – see front matter © 2013 Elsevier Ltd. All rights reserved.
http://dx.doi.org/10.1016/j.adiac.2013.12.002

information on non-recurring items will depend on investors' level of financial reporting knowledge. Specifically, nonprofessional investors with lower levels of financial reporting knowledge (i.e., lower-knowledge nonprofessional investors) must view and acquire information on non-recurring items from the reconciliation before integrating it into their judgments, since they may not be aware that non-recurring items are disclosed elsewhere in the financial reports. On the other hand, nonprofessional investors with higher levels of financial reporting knowledge (i.e., higher-knowledge nonprofessional investors) may acquire the reconciling information either by viewing the "repackaged" information in the reconciliation or by examining the disclosure of adjustments for non-recurring items in other sections of the financial reports.

We conducted an experiment to examine how pro forma earnings disclosures and reconciliation viewing behavior influence the judgments of nonprofessional investors with varying degrees of financial reporting knowledge. We assessed financial reporting knowledge using an instrument similar to that used by Elliott, Hodge, Kennedy, and Pronk (2007). Participants viewed a simulated Investor Relations web site for a large drug retailer. The web site included an earnings press release and accompanying financial statements that contained either GAAP-only earnings information or both pro forma and GAAP earnings information. Participants in the pro forma disclosure condition were able to access earnings reconciliation by clicking on a hyperlink. Non-recurring items caused the most recently quarterly and annual pro forma income to be higher than GAAP income. Participants made a set of judgments about the company's earnings performance and amount to invest.

We find that lower-knowledge nonprofessional investors presented with reconciled pro forma earnings disclosures indicate higher evaluations of a firm's earnings performance than when they are presented with GAAP-only disclosures, suggesting that these investors' judgments, on average, are influenced by pro forma disclosures, even when a reconciliation is present. At the same time, earnings performance judgments of higher-knowledge nonprofessional investors do not differ by disclosure content (GAAP-only versus pro forma with reconciliation). Disclosure content does not influence investment amount judgments, regardless of nonprofessional investor knowledge level.

Further analysis shows that financial reporting knowledge and reconciliation viewing behavior have interactive effects on nonprofessional investors' judgments when reconciled pro forma disclosures are present. Lower-knowledge nonprofessional investors who spend relatively more time viewing the reconciliation compared to other materials contained in the financial reports have lower earnings performance and investment amount judgments. In contrast, the proportion of time spent viewing the reconciliation does not affect higher-knowledge nonprofessional investors' earnings performance and investment judgments. This suggests that repackaging non-recurring items into a reconciliation reduces the influence of pro forma disclosures on lower-knowledge nonprofessional investors' judgments, as long as these investors acquire this information by viewing the reconciliation. On the other hand, higher-knowledge nonprofessional investors may make judgments which incorporate information on differences between GAAP and pro forma measures without viewing the reconciliation.

Our study extends previous research into the effects of pro forma earnings disclosures and reconciliations on nonprofessional judgments (Elliott, 2006; Frederickson & Miller, 2004) in two ways. First, we explicitly consider the influence of differences in financial reporting knowledge among nonprofessional investors, whereas earlier studies treat these investors as a homogeneous group. Second, we collect process data, which allows us to examine the interactive influence of nonprofessional investors' reconciliation viewing behavior and financial reporting knowledge on their judgments. Our results indicate that the previously demonstrated influence of reconciling information on nonprofessional investor judgments (Elliott, 2006) is contingent on both financial reporting knowledge and information viewing behavior. Specifically, lower-knowledge nonprofessional investors appear to effectively acquire information on non-recurring items only if it is presented in the form of a reconciliation. Alternately, higher-knowledge nonprofessional investors may acquire this information either from a reconciliation or from other sections of the financial reports.

## 2. Background and hypotheses

### *2.1. Influence of pro forma earnings disclosures on investor judgments*

Pro forma earnings are a function of management discretion and are not uniformly defined; thus, the Securities and Exchange Commission (SEC) is concerned about the potential for pro forma information to mislead investors (SEC, 2001). While the SEC acknowledges that pro forma information can serve useful purposes, they question whether the use of pro forma metrics confuses investors and makes comparisons between reporting periods and between companies difficult. Sharing this concern, Congress directed the SEC in Section 401 of the Sarbanes–Oxley Act (U.S. House of Representatives, 2002) to develop regulations to reduce or eliminate pro forma earnings disclosures which might be misleading (Entwistle, Feltham, & Mbagwu, 2006). The SEC responded by issuing Regulation G (SEC, 2003), which requires the reconciliation of pro forma information to the corresponding GAAP measures.

Frederickson and Miller (2004) suggest that the presence of pro forma disclosures influences nonprofessional investors' judgments through unintentional cognitive effects. Subsequent experimental (Elliott, 2006) and archival (Allee, Bhattacharya, Black, & Christensen, 2007; Zhang & Zheng, 2011) research indicates that reconciling pro forma earnings disclosures to GAAP reduces the influence of pro forma emphasis earnings disclosures on nonprofessional investors' judgments. These studies, however, do not consider the fact that differences in financial reporting knowledge among nonprofessional investors are significant, which may affect how they acquire and integrate financial information, and, in turn, may influence their resulting judgments (Elliott et al., 2007, 2008).

Frederickson and Miller (2004) find that nonprofessional investors who reviewed earnings press releases which report unreconciled pro forma figures that are greater than GAAP earnings assessed a higher future stock price than did those who examined a press release containing GAAP-only disclosures. At the same time, the presence of unreconciled pro forma earnings disclosures did not affect the stock price judgments of professional investors. Supplemental analyses suggest that pro forma earnings disclosures influence nonprofessionals' judgments because of unintentional cognitive effects, rather than nonprofessionals perceiving the supplemental disclosures as informative. Professional investors' judgments are not affected by pro forma earnings disclosures because they appear to use well-defined valuation models that reflect an understanding of the relative importance of various pieces of financial information.

Similarly, Elliott (2006) finds that the earnings performance judgments of nonprofessional investors are higher when they are given a press release which emphasizes unreconciled pro forma earnings disclosures relative to the judgments of nonprofessional investors given GAAP-only disclosures. Professional investors' earnings performance and investment judgments, however, do not appear to be significantly different whether they view unreconciled pro forma emphasis or GAAP-only earnings disclosures. Further, Elliott finds that earnings performance and investment judgments of nonprofessional investors provided with a press release that emphasizes pro forma earnings and reconciles this measure to GAAP do not differ from those of nonprofessional investors given GAAP-only disclosures. This effect appears to occur because the reconciliation repackages information on differences between GAAP and pro forma earnings in a format that makes it easier