Accounting Standards Update 2014-09 and the comparability of unexercised contractual rights: An ex ante analysis

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ABSTRACT

Effective December 15, 2017, the Financial Accounting Standards Board (FASB) mandated a singular approach to account for unexercised contractual rights in Accounting Standards Update (ASU) 2014-09; FASB's aim was to improve financial statement comparability and decision usefulness through uniformity. This study evaluates comparability prior to the ASU's implementation; the expectation is that divergent procedures used before the ASU limited financial statement comparability and adversely affected market participants. Using fixed factor general linear models, retail gift card breakage as a type of unexercised contractual right, and an outcome-based measure of comparability, this study finds that financial statement comparability did not appear to be problematic, *ex ante*. In addition, this study finds that market analysts' ability to forecast earnings were not impaired by the divergent accounting methods which measured economically similar transactions. As such, the results appear to question the conventional wisdom that differences in accounting procedure for similar economic activity negatively affect comparability.

Keywords: ASU 2014-09, Unexercised Contractual Rights, Breakage, Proportionate Method, Comparability, Retail Industry

INTRODUCTION

Accounting Standards Update [ASU] 2014-09, Revenue from Contracts with Customers (Topic 606), (issued May, 2014 but effective for annual reporting periods after December 15, 2017) clarifies and standardizes revenue recognition principles in the US. The update, among other things, was designed to improve comparability of revenue recognition practices across entities (FASB, 2014), where comparability is defined as "the qualitative characteristic that enables users to identify and understand similarities in, and differences among items (FASB, 2010, p. 19)." The concept of comparability is imperative in capital markets, for example, because it "enhances investors' ability to understand the link between accounting numbers and economic outcomes and to compare firms' performance (Cheng & Wu, 2018, p. 574)."

One area addressed by the pronouncement was unexercised contractual rights (UCR), or simply, breakage (cf., ASC 606-10-55-48). Breakage occurs because a customer fails to fully exercise a contractual right to receive a good or service in the future. Examples of unexercised rights include coupons for discounts on future purchases and non-refundable tickets (BDO, 2017). Under certain conditions, breakage is earnings accretive because firms are no longer contractually bound to fulfill their performance obligation and are therefore able to recognize income because of the contractual failure. ASU 2014-09 eliminates divergent UCR recognition practices by stipulating the use of the proportionate accounting method when breakage is expected (i.e., probable) but not subject to escheatment, and mandates that breakage should be recorded as revenue. The proportionate method requires that breakage should be recognized on a pro-rata basis in proportion to actual contractual redemptions.

FASB's efforts to standardize the accounting for UCR is laudable, especially given the research by Kaufinger and Neuenschwander (2015) who found that breakage was used to manage earnings in the retail sector in order to meet Earnings per Share (EPS) forecasts. Yet, as often happens in the accounting profession, new standards are promulgated without *ex ante* research (Álvarez, Calvo, & Mora, 2014). In fact, an extensive review of the literature finds that no study has investigated whether divergent UCR accounting methods in use prior to the release of the new standard had different outcomes that might have affected financial statement comparability. Further, literature has not investigated whether the users of financial statements were adversely affected by non-standard UCR practices prior to ASU 2014-09. These gaps are unfortunate because the presupposition is that the new standard will be beneficial for the users of financial information in the form of enhanced comparability and decision usefulness (Financial Accounting Standards Board (FASB), n.d.).

In response, this study investigates financial statement comparability prior to ASU 2014-09 through two questions. First, did different UCR recognition methods result in significantly different earnings outcomes? Here, the authors assume that if breakage recognition prior to ASU 2014-09 resulted in non-comparable financial statements, then the effect on earnings between different methods will be significantly different. That is, divergent methods accounted for similar economic activity in such a way that earnings were not comparable. And second, did different UCR recognition practices impact financial analysts' ability to forecast EPS? On this, the authors assume that if the choice of UCR method significantly impacts earnings, then from the analyst's perspective, her

ability to accurately forecast earnings per share diminishes. EPS was chosen because it is the quintessential outcome-based comparator for investors. In sum, our expectation is that both financial statement comparability and analysts' earnings forecasts were contravened prior to ASU 2014-09. For both questions, the retail sector was selected as the singular industry of focus because breakage is found extensively in this sector as a result of unredeemed gift cards. Estimates vary on the size of gift card breakage in retail, but one recent commentary estimated annual breakage at $4 billion (Hannen & Pakaluk, 2016). Plus, comparability issues for retailing firms may primarily involve revenue (Kim, Kraft, & Ryan, 2013).

The results of this study do not confirm our expectations. The results seem to suggest that pre-ASU 2014-09, different methodologies did not result in significantly different changes in EPS; moreover, the results seem to suggest that analysts' earnings forecasts were not confounded by the use of various UCR recognition methods. In other words, non-standardized UCR recognition did not affect financial statement comparability nor the analysts use of those statements. The results therefore suggest that FASB's quest for UCR comparability through a prescribed method in ASU 2014-09 may be unfounded, at least for an intra industry comparison as was done in this study. In short, our results raise questions about the effectiveness of ASU 2014-09 in improving financial statement comparability through prescribed means.

Our study contributes to the literature in several ways. First, it provides empirical evidence as to whether a new accounting standard will improve comparability. To our knowledge, this is the first study to examine the comparability of unexercised contractual rights under different accounting methods *ex ante*. By finding that comparability was not an issue prior to ASU 2014-09, the authors provide evidence that sameness in procedure is not requisite to achieve financial statement comparability. Second, this study continues the line of extant literature that asserts that different input measures (i.e., different ways to account for something) are irrelevant if they produce the same outcome for similar economic activity. By finding that market analysts' ability to forecast earnings is not affected by the choice of accounting method, the authors provide further evidence that market participants are not confounded by accounting choice.

The remainder of this paper is organized as follows. The next section provides a brief overview of breakage accounting in retail prior to ASU 2014-09. Following that, the authors review relevant literature on breakage and financial statement comparability. After developing the hypotheses, the authors discuss the research design and data. After a discussion on the empirical findings, the authors conclude with limitations, suggestions for future research, and closing comments.

BACKGROUND: ACCOUNTING FOR UCR IN RETAIL

Breakage is found extensively is the retail sector. Breakage is a byproduct of closed-loop gift card programs; in this context, it represents the unredeemed portion of gift card sales (Kile & Wall, 2008). The accounting for UCR in this arena is unique because merchants are permitted to recognize income from breakage without ever fulfilling the performance obligation requirement stipulated in US generally accepted accounting principles (GAAP). As such, the effect of breakage is always accretive because there is no offsetting cost of sale.

In practice, retail firms record breakage in two phases: (1) an initial, one-time adjustment for all prior years' unrecognized breakage since inception of their gift card program (i.e., initial breakage), and (2) subsequent adjustments to keep their gift card liability current (i.e., ongoing breakage). Regardless of the phase, but prior to ASU 2014-09, retailers recognized breakage using one of three methods: the delayed recognition method, the proportionate method, or the released obligation method. The chosen method affected only the timing of breakage recognition with the proportionate method providing the most accelerated benefit and the released obligation method the least. The proportionate method generally resulted in more prompt breakage recognition because it was tied to a triggering event, namely redemption (Fried, Holtzman, & Rotenstein, 2015).

LITERATURE REVIEW

This section reviews both relevant UCR (breakage) literature and research on accounting comparability. Gaps are highlighted in the literature; research hypotheses are developed.

Breakage

Public conversation surrounding UCR accounting in which there is a single performance obligation first surfaced with a Security and Exchange Commission (SEC) address to the December, 2005 AICPA National Conference on Current SEC and PCAOB Developments (Schlosser, 2005). In its comments before the AICPA, the SEC discussed its response to a registrant's practice of recognizing expected breakage at the point of sale. Here, the SEC objected to the method because the delivery/performance criterion within GAAP was not met at the point of sale. Since immediate recognition was not appropriate, the SEC suggested three tenable approaches: (1) when the vendor is legally released from its obligation, (2) at the point redemption becomes remote, or (3) in proportion to actual redemptions (Schlosser, 2005). Yet, despite the apparent definitiveness of the SEC's stance before the AICPA, breakage accounting was actually a complicated mess (Beck, 2005); in fact, both accounting guidance and actual industry practice were so vague that the SEC was worried that breakage could be used to artificially increase profits (Karlin, 2006).

Interest in breakage became mainstream after the press reported extraordinary increases in EPS due to breakage by companies like Best Buy and Home Depot (e.g., Schoolcraft, 2005; Dubner & Levitt, 2007). In addition, with the publication of three articles in practitioner-oriented journals (see, Marden & Forsyth, 2007; Kile, 2007; Kile & Wall, 2008), the discussion on breakage turned to several accounting and reporting concerns. The general consensus in these articles was that in practice, retail industry breakage recognition was arbitrary and non-uniform. Additionally, the authors expressed concern that breakage recognition was subject to management manipulation. The authors unanimously agreed that unless FASB or SEC specifically addressed the accounting for breakage, financial statement quality and comparability would suffer.

Academic research followed. Feinson (2008) was the first to conduct research into actual accounting practice and disclosure of breakage. Reviewing annual report disclosure from 2006, her qualitative review found no consistency in breakage

recognition disclosures nor practices among 75 different retailers. Her conclusion was that the state of UCR accounting was in flux because accounting guidance at the time was still evolving. A few years later, Kaufinger (2013) echoed similar concerns when he investigated breakage as an earnings management tool. He found that retail firms used breakage to manage earnings for the period 2005 through 2011 and that a primary reason for the behavior was meeting market analysts' EPS forecasts. Importantly, he concluded that breakage guidance was not well codified and that breakage policies were discretionary, advantageous, and inconsistently applied. He called for bright-line rules on breakage recognition.

In the end, it's likely that International Accounting Standards (IAS) convergence is what ultimately drove FASB's decision to add UCR guidance to ASU 2014-09 (Deloitte, 2016). If a business is entitled to breakage in a contract liability, the standard calls for the use of the proportionate method when breakage is expected (i.e., probable) but not subject to escheatment, and mandates that breakage should be recorded as revenue. Per FASB (2014), the update was intended to both *improve and significantly enhance comparability* [emphasis added].

In summary, the conventional wisdom presented in the literature is that limited guidance and disparate UCR methods hurt financial statement comparability. Yet, it should be obvious from this brief review that this established presupposition was not investigated in the academic literature ex ante. We simply did not know whether different accounting methods for UCR affected financial statement comparability. Further, it should be noted that any capital market ramifications of divergent UCR practices were not studied prior to the release of the ASU.

Comparability

Comparability is defined by the FASB as "the qualitative characteristic that enables users to identify and understand similarities in, and differences among items (FASB, 2010, p. 19)." The term is a relational term (Bordeman, 2017) because it facilitates comparisons between firms. It is now generally accepted that comparability enhances the relevance and faithful representation of financial reports.

There is a rich history of academic literature that has espoused the benefits of financial statement comparability (Campbell and Yeung, 2017). Nowhere is this clearer than in capital markets. Research has found that financial statement comparability allows investors to better anticipate future firm performance (Choi, Choi, Meyers, & Ziebart, 2019) and make equity valuation decisions (Stallings, 2017). Comparability enhances the efficiency of acquisition decisions when the financial statements of target firms are comparable to industry peers (Chen, Collins, Kravet, & Mergenthaler, 2018). Finally, comparability benefits debt markets by reducing asymmetry (Fang, Li, Xin, & Zhang, 2016) and uncertainty around credit risk (Kim et al, 2013). In summary, there seems to be a strong relationship between financial statement comparability and capital market efficiency.

Input Consistency vs. Output Comparability

For a significant part of recent history, however, there is an ongoing debate on what creates comparability in accounting and in financial reports. There are two factions: those who advocate that inputs create comparability and those who advocate that outputs create comparability.

On one hand, many in the accounting profession seem to believe that "sameness in procedure" equates to more comparable outcomes (see e.g., Zeff, 2005); at a minimum, this worldview certainly has been prevalent since the Trueblood Report (1973). Miller (1978) captured the essence of this widely accepted worldview, describing it as "input consistency," or the selection of one acceptable principle for one set of circumstances. Taking input consistency to the extreme, Gordon and Gallery (2012) recently coined the term "deep comparability" to describe situations where there are singular accounting options to report similar economic events. They believed that deep comparability was a desirable outcome for standard setters. Said succinctly, this means that everyone does accounting the same way.

On the other hand, others argue that uniformity does not guarantee an equivalent reflection of underlying economic activity (see e.g., Simmons, 1967). Along these lines, Miller cautioned that while input consistency is important, it does not really ensure what he called "output comparability," or the idea that it's actually the output of the accounting process that allows users to make valid comparisons between entities. This notion of output comparability has increased in popularity, especially after the influential work of De Franco, Kothari, and Verdi (2011). De Franco et al. emphatically declare that from a user's perspective, different input measures are irrelevant if they produce the same result. As such, De Franco et al. conceptually redefine comparability as the closeness between two firms' accounting systems such that, for a given economic event, both firms produce similar financial statements. Using earnings as a proxy for financial statements, De Franco et al. found that comparability is higher for firms with similar earning attributes and that earnings comparability is associated with better analysts' forecasts and coverage. De Franco et al. also suggest that an output-based approach can help assess comparability as a result of accounting standard changes or accounting choice differences. In this study, the authors follow De Franco's paradigm of output comparability.

Gross and Perotti (2017) provide an excellent summary of this new output-comparability research stream post De Franco et al. Importantly, they cite four advantages to using an output-oriented approach in comparability research, including: (a) better alignment with users' interests, which tends to focus on financial reports rather than method choices, (b) less reliance on arbitrary index weightings, which are typically used in input-based studies, (c) larger sample sizes, based on archival data, can be leveraged, and (d) greater alignment of the economic event to the accounting choice. Finally, methodologically, Gross and Perotti note that output-based comparability studies typically focus on the primacy of reported earnings as the variable of concern.

Comparability and Revenue Standards

A principal motivation for issuing ASU 2014-09 was to improve the comparability of financial statements (Carmichael, 2019). As such, the standard was

designed to eliminate inconsistencies in GAAP by streamlining revenue recognition guidance (Bloom & Kamm, 2014) and ultimately benefit capital markets (Rutledge, Karim, & Kim, 2016). To our knowledge, however, there is no empirical research which has specifically examined comparability and the new ASU, either ex ante or ex post. However, Bordeman (2017) documents a negative relationship association between permissible discretion in revenue-related standards and comparability. Specifically, after Statement of Position (SOP) 97-2 constrained managerial discretion in the software industry, financial statement comparability increased. Applying his conclusions to this study, the authors expect a negative relationship between UCR accounting and comparability ex ante because prior to ASU 2019-09, GAAP permitted significant discretion around the recognition of breakage (Kaufinger, 2016).

Hypothesis Development

While improved comparability was a principal motivation for issuing ASU 2014-09 (FASB, 2014), no study to our knowledge investigated whether divergent UCR accounting methods in use prior to the release of the new standard had different outcomes that might have affected financial statement comparability. Gift card breakage provides a novel opportunity to exam comparability ex ante because various methods were employed prior to the ASU. However, generally speaking, how to methodologically assess the comparability of new accounting standards is still unresolved (Caban-Garcia & He, 2013). Perhaps in order to best evaluate this construct, one area to draw from which is actually consistent with De Franco et al. is outcomes-oriented research; this type of research is typically found in the education or medical fields to assess the comparability of educational or clinical outcomes. For example, in education, this type of research has been used to assess the comparability of test scores from different assessment conditions, like computer-based versus paper-and-pencil based examinations (see e.g., Chan, Bax, & Weir, 2018). Test scores are considered comparable if the results, which measure the same learning outcomes, produce the same or similar inferences (Evans & Lyons, 2017). Similarly, in the medical field, outcomes-based research, which is typically called an efficacy study, compares one treatment to another treatment; the primary interest is the effect of each treatment on the ultimate outcome(s) (Bellack & Hersen, 1998). Treatments are considered comparable when they produce similar results. For example, a review of branded versus generic drug research typically shows comparable outcomes and the results have been used to justify product-substitution in the US because the generic drug is comparable to the branded drug in terms of efficacy.

Extending the intent of outcomes-oriented research found in other disciplines to this study, it can be argued that various UCR methods are merely alternatives which firms can consistently employ to transform an underlying economic event into usable financial values and statements, and that similar outcomes between methods suggest comparability. As such, and consistent with De Franco et al. (2011), the authors reason that isolating each breakage method's impact on earnings allows for an examination of comparability. Because retail industry breakage is accretive, its effect on earnings can be readily established without confounding influences from other accounting transactions or economic events. Specifically, if breakage recognition prior to ASU 2014-09 resulted in non-comparable financial statements, then the mean effect on earnings should be

significantly different between methods. One would expect that one (or more) method results in an earning outcome unlike the others. And if that is the case, then that method did not produce a comparable result, and FASB's actions in ASU 2014-09 are highly justified. Thus, it is hypothesized:

H_1: There is a difference in earnings from the choice of breakage method.

One thing that is unique about breakage in the retail sector is that it is recognized in two stages. Recall that in practice, retailers first record a one-time adjustment to recognize breakage that occurred since the inception of their gift card program (i.e., initial breakage), and then make subsequent, ongoing adjustments to keep their gift card liability current (i.e., ongoing breakage). These two situations can be readily isolated based on company disclosure, and are therefore testable as separate treatments. As such, it is hypothesized:

H_{2A}: At initial recognition, there is a difference in earnings from the choice of breakage method.

H_{2B}: Post initial recognition, there is a difference in earnings from the choice of breakage method.

One also cannot overlook the reality that comparability affects users, particularly market participants. One area where this is true is market analysts' forecast accuracy. Forecast accuracy is the difference between the analysts' expected forecasts (of earnings or revenue, for example) and actual firm results; it is sometimes referred to as "forecast error" if stated in the negative. De Franco et al. (2011) found that with more comparable financial statements, market analysts were able to achieve higher forecast accuracy. Similarly, Lin and Lin (2017) found that analysts' forecast accuracy differed significantly based on how a firm chose to disclose quantitative market risk under SEC FRR No. 48; in their study, analysts were better forecasters when firms adopted the value at risk (VaR) framework even though the SEC deemed that the VaR framework was one of three acceptable - and hence comparable - disclosure methods. Logically, one can assume that analysts' forecast accuracy may be impacted by the use of multiple breakage recognition methods as well; here, the authors assume that an analyst's ability to accurately forecast a firm's earnings is associated with the firm's choice of breakage method. As such, it is hypothesized:

H_3: The choice of breakage method affects analysts' ability to accurately estimate retail firms' earnings.

In similar fashion, one can isolate initial breakage recognition from ongoing activity, and test separate hypotheses, as follows:

H_{4A}: At initial recognition, the choice of breakage method affects analysts' ability to accurately estimate retail firms' earnings.

H_{4B}: Post initial recognition, the choice of breakage method affects analysts' ability to accurately estimate retail firms' earnings.

METHOD

The purpose of this study is to evaluate the accounting for unexercised contractual rights on financial statement comparability ex ante, and to evaluate the impact of unexercised contractual rights on comparability as it pertains to market analysts' forecast accuracy; these goals are analyzed through gift card breakage, a novel revenue item in the retail sector that is easily isolated and accretive to earnings. This study employs descriptive analysis and fixed factor general linear models; general linear models are frequently used in outcomes-oriented research. A fixed factor general linear model is deemed sufficient to identify statistically significant relationships because the sample size is large, the dependent variable is continuous (and does not need to be normally distributed), and the independent variables are categorical. The criterion for statistical significance is 95%.

The authors leverage the following model to test H_1:

$$(1) \qquad EPS_{it} = \alpha + b_1 (METHOD_{it}) + b_2 (LINE_{it}) + \varepsilon_{it}$$

In Eq. (1), EPS represents the accretive effect of breakage on earnings per share, which is calculated at the individual firm level as the difference between actual, annual, reported basic earnings per share which includes breakage, and a derived earnings per share, excluding breakage, adjusted for taxes. The values are stored as currency. Following outcomes-oriented research, comparability is measured by comparing the mean influence on earnings per share from each breakage recognition method. METHOD is a categorical variable that represents the breakage recognition method; the value equals 1 if the method is the proportionate method, 2 if the method is the released obligation method, and a 0 for the delayed recognition method. Based on prior literature which concluded that retail firm characteristics influence financial outcomes (e.g., Hayes & Jones, 2006), the authors included a categorical variable, line of trade (LINE), to control for exogenous firm characteristics. Line of trade categorizes retail firms in this study by the Standard Industry Classification (SIC) major group code; SIC codes are assigned to firms by government agencies based on common firm characteristics such as stores that sell apparel or stores that sell hardware. For H_{2A} and H_{2B}, the authors extend Eq. (1) by parsing the dataset into two subsets: (1) firm-years containing only the initial recognition of breakage and (2) firm-years containing only ongoing breakage.

The authors use the following model to test H_3:

$$(2) \qquad FA_{it} = \alpha + b_1 (METHOD_{it}) + b_2 (LINE_{it}) + \varepsilon_{it}$$

In Eq. (2), FA represents the earnings surprise, or the difference between consensus market analysts' forecasts of firm specific EPS and actual reported EPS; the FA value is continuous, and stored as a percentage. Positive FA values represent actual EPS levels above market forecasts. In all cases, the earnings surprise represents the earnings surprise from the last fiscal quarter (i.e., the 4th quarter) for each firm year since

market analysts forecasting annual EPS already know actual results from the first three quarters. For H_{4A} and H_{4B}, the authors extend Eq. (2) by splitting the dataset into two subsets: (1) firm-years containing only the initial recognition of breakage and (2) firm-years containing only ongoing breakage.

SAMPLE AND DATA COLLECTION

Annual financial statements, including respective breakage amounts for publicly traded retailers, along with their respective line of trade, were downloaded from the US Securities and Exchange Commission Electronic Data Gathering, Analysis, and Retrieval (EDGAR) tool. The data was retrieved under SIC codes 52 - 59, "Retail Trade." Annual report (10-K) disclosures were evaluated for the presence of initial and ongoing recognition of gift card breakage as well as the breakage methodology employed by each retail firm. Firms that did not disclose both annual breakage values and methods during the study frame were excluded. Earnings surprise data was pulled from Zacks.com, an independent research and investment site. Effective tax rates were calculated from the financial statements and used to convert pre-tax breakage values to an after-tax basis in order to compute EPS_{it} for hypothesis H_1 and $H_{2A/2B}$.

The sample covers the fiscal years 2002 to 2017 which equates to a reporting period of February, 2003 to March, 2018 because a retailer's fiscal year does not typically align with the calendar year. Fiscal year 2002 was the first year a sampled retail firm publicly disclosed its breakage practice in its 10-K. Importantly, no firm in the sample had adopted ASU 2014-09 as of fiscal year 2017.

The resulting sample consisted of 576 firm-year observations; all firms in the sample had voluntarily disclosed breakage amounts and policies. Nineteen firm-year observations were dropped because one retail firm (n = 11) was the singular firm represented within a specific line of trade, and a second retail firm (n = 8) went private during the study period. Thus, our final sample for hypotheses H_1 and $H_{2A/2B}$ is 557 firm-year observations. The sample size for the hypotheses involving forecast accuracy was constrained (n = 466) because some retailers were too small for wide-ranging analyst coverage. Table 1 (Appendix) provides a profile of the retailers used in the study.

RESULTS

Panel A of Table 2 (Appendix) provides descriptive statistics on the effect of breakage on the variable EPS for the entire sample. The mean (median) increase in EPS from breakage under the proportionate method was $0.05 ($0.03); the mean (median) increase in EPS from breakage under the delayed recognition method was $0.04 ($0.02). Noticeably absent is the released obligation method; no retail firm in the sample used this recognition method. The data is positively skewed and leptokurtic; however, the number of observations minimizes concerns regarding non-normality. Looking at the two phases of recognition (initial recognition and ongoing recognition) in Panel A, the authors find that the mean (median) increase in EPS upon initial recognition of breakage under the proportionate method was $0.09 ($0.04) versus $0.04 ($0.03) under the delayed recognition method. Likewise, the authors find that the mean (median) increase in EPS

from ongoing recognition of breakage under the proportionate method was $0.04 ($0.02) versus $0.04 ($0.02) under the delayed recognition method.

Panel B of Table 2 (Appendix) provides descriptive statistics for those firm-year observations with an earnings surprise value. The mean (median) earnings surprise for firms that use the proportionate method was 7% (3%); the mean (median) earnings surprise for firms that use the delayed recognition method was 0% (3%). The data is negatively skewed but leptokurtic. The number of observations minimizes concerns regarding non-normality. Regarding the impact on analysts' forecast accuracy of earnings from the two phases of recognition, Panel B conveys that the mean (median) earnings surprise is 20% (7%) when breakage is first recognized under the proportionate method versus 32% (3%) under the delayed recognition method. Similarly, the mean (median) earnings surprise is 6% (3%) when breakage is recognized post-initial recognition under the proportionate method versus -4% (3%) under the delayed recognition method.

H_1 tests whether there is a difference in earnings per share from the choice of breakage method. Table 3 (Appendix) presents the fixed factor general linear model results for H_1 which controlled for retail line of trade. The results of the general linear model indicated that the fixed factor variables jointly explained 13% (R^2 = .129) of the accretive increase in earnings per share; yet, the authors could not conclude that there is a statistically significant relationship between breakage recognition method and the increase in earnings per share (p = .211). Not all the means between retail lines of trade are equal (p = .000); moderate multicollinearity exists between the lines of trades. Residual plots showed non-normality.

H_{2A} and H_{2B} extend H_1 by examining whether there is a difference in earnings per share from the choice of breakage method at initial recognition and for ongoing recognition, respectively. Table 4 (Appendix) presents the results, which again controls for the line of retail trade. At initial recognition, the model explained 21% (R^2 = .207) of the accretive increase in earnings per share; the breakage method was statistically significant (p = .016), but line of trade was not (p = .136). In contrast, for ongoing breakage, the results indicated that while the fixed factor variables jointly explained 15% (R^2 = .149) of earnings per share impact, there is not a statistically significant relationship between breakage recognition method and the increase in earnings per share (p = .971). Not all the means between retail lines of trade are equal (p = .000); moderate multicollinearity exists between the lines of trades.

H_3 tests whether the choice of breakage method affects analysts' ability to estimate a retail firm's earnings. Table 5 (Appendix) presents the fixed factor general linear model results for H_3 which controlled for retail line of trade. Neither method (p = .280) nor line of trade (p = .113) were statistically significant in explaining the dependent variable, forecast accuracy. H_{4A} and H_{4B} extend H_3 by splitting the H_3 dataset into two subsets: (1) firm-years containing only the initial recognition of breakage and (2) firm-years containing only ongoing breakage. Table 6 (Appendix) presents the results, which again controls for the line of retail trade. At initial recognition, neither breakage method (p = .421) nor line of trade (p = .609) were statistically significant in explaining deviations in forecast accuracy. Likewise, for ongoing recognition, neither breakage method (p = .171) nor line of trade (p = .101) were statistically significant.

In sum, these results do not support H_1 and H_{2B} as they appear to contravene assertions that different breakage methods prior to ASU 2014-09 impaired comparability.

In contrast, the results seem to support H$_{2A}$; that is, upon initial recognition of breakage, different methods have significantly different effects on earnings per share. Finally, the results do not seem to support H$_3$, H$_{4A}$, nor H$_{4B}$. In each instance, forecast accuracy did not significantly differ even though retail firms employed different breakage methodologies.

DISCUSSION

This study looks at several hypotheses to evaluate (1) the accounting for UCR on financial statement comparability prior to ASU 2014-09 implementation, and (2) the impact of UCR on comparability as it pertains to market analysts' forecast accuracy. Contrary to our expectations, the results appear to counter the conventional argument that financial statement comparability was impaired ex ante because of multiple UCR methods; that is, at least within the context of retail breakage and its impact on earnings per share, comparability did not seem to be a problem prior to fiscal year 2017. The results seem to suggest that pre-ASU 2014-09, different breakage recognition methodologies did not result in significantly different changes in earnings per share. The only exception was upon initial recognition of breakage, where the proportionate method created a significantly greater increase in earnings per share (M = $0.09) than did the delayed recognition method (M = $0.04). This finding seems logical however because the proportionate method is known to accelerate revenue recognition versus other methods (Fried et al., 2015). At initial recognition, the proportionate method would not only recognize all breakage from inception of a retailer's gift card program, but it would recognize a greater portion of breakage in the fiscal years that are closest to (i.e., leading up to) the date of initial recognition than either the delayed recognition or the released obligation method.

Given these results, it seems difficult to imagine then that FASB and the accounting profession will reap any comparability benefits from the new standard when comparability did not appear to be infringed pre-adoption. In fact, it could be argued that based on this study's results, "differences in procedure" actually equated to comparable outcomes. This assertion is consistent with literature that historically espoused equivalent measurement over uniformity (see e.g., Simmons, 1967).

Equally important is the finding that different accounting procedures for retail breakage did not significantly impact market participants' ability to predict earnings. In fact, the average forecast error in this study is 3%, which suggests that for the most part, analysts' do a good job forecasting the earnings of retailers. Importantly, the mean earnings surprise on sampled firms employing different methods was not statistically significant, suggesting that the accounting method did not affect the analyst. Initial breakage did appear to surprise analysts, however, as the mean forecast error in the year of first recognition was 27% (versus 0% for ongoing recognition), but both the proportionate method and the delayed recognition method resulted in similar surprises. The authors consider this situation an "accounting shock" rather than a problem of comparability as most retail firms do not signal when they will first recognize breakage. Kile (2007) noted that some analysts misread sales and gross margin trends as a result of similar breakage activity in the 2000s, and we suspect the same. As such, and consistent with prior literature (De Franco et al., 2011), this study seems to reinforce the notion that

concerns around uniformity in procedure is less relevant if different methods essentially produce the same, comparable result for a given economic activity.

The results have practical implications for both industry practitioners and standard setters. For the practitioner, especially those employed in retail firms using a method other than the proportionate method, the new standard will require accounting/method adjustments which may be costly to implement. Further, standard setters should be especially mindful that while adoption of the new standard is mandatory, the perceived benefits of greater comparability may not be realized. Moreover, this study highlights the need for empirical research prior to sweeping accounting standard reforms; standard setting bodies may want to employ positive accounting research before prescribing uniformity in approach to minimize disruption in the profession.

LIMITATIONS AND FUTURE RESEARCH

A limitation of this study stems from our use of a convenience sample. Because publicly-traded retail firms voluntarily disclosed UCR practices and amounts during the study period, our data was not collected randomly. Our ability to achieve a larger, more robust sample was limited because the majority of publicly traded retailers do not disclose their UCR practices. As a result, our results might not represent the retail industry at large. It is plausible that there are other, exogenous characteristics among the firms in this study that precipitated their breakage disclosure, which may bias the results. Therefore, the results may not be fully generalizable.

A second limitation involves market analysts' consensus forecasts. This study assumed that market analysts' forecasts are a true reflection of market expectations and void of estimation bias, and therefore any deviation from actual earnings values is a true forecast error. Yet, literature has found that analysts' projections are questionable (Dreman & Berry, 1995). In addition, we also assumed that analysts and analyst characteristics are static across time; this may not be the case (Clement, 1999). Given these assumptions, inferences made in this study regarding whether an accounting procedure impacts analysts' ability to forecast earnings may be limited.

While this study advances the comparability literature, opportunities to extend this research exist. First, the authors established a baseline for future studies whereby researchers can investigate UCR comparability using pre-/post-event study methodology. Second, this study examined breakage in the retail sector; yet, breakage is found in other sectors, such as the airline industry. A similar outcomes-oriented study using a different sector or multiple sectors would be interesting. Unlike the intra sector analysis in this study, it is plausible that ASU 2014-09 may improve comparability across sectors. Finally, the economic cost of migrating from the delayed recognition method to the proportionate method is currently unknown. Anecdotally, the researchers assume that there is a cost to changing standards (modifying computer code, for example), but it would be interesting to understand the economic cost of changing methods to the proportionate method.

CONCLUSION

This study investigated financial statement comparability prior to ASU 2014-09 through two questions. First, did different UCR recognition methods result in significantly different earnings outcomes? The expectation was that breakage recognition prior to ASU 2014-09 resulted in non-comparable financial statements. However, contrary to this expectation, the results suggest that financial statement comparability was not contravened because the mean effect on earnings per share from different UCR methods was not significantly different. And second, did different UCR recognition practices impact financial analysts' ability to forecast EPS? On this, the expectation was that different UCR methods muddled the analysts' ability to accurately predict future earnings. Again, contrary to this expectation, the results seem to suggest that analysts' earnings forecasts were not confounded by the use of various UCR recognition methods. In sum, different UCR methods prior to ASU 2014-09 did not appear to affect financial statement comparability. The authors recognize that FASB asserted uniformity of procedure in the standard to increase comparability; however, the results of this study challenge the conventional wisdom that sameness in accounting procedure for a specific economic activity is requisite to achieve financial statement comparability.

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APPENDIX

Table 1: Sample Profile by Line of Trade

Line of Trade	Firms	Avg. Annual Revenue* ($ Billions)	Total Firm-Year Observations	Observations used for Earnings Surprises
Apparel/Accessories	26	$3.6	236	223
Hardware	2	$42.6	26	26
Restaurants	15	$2.3	118	101
Food Stores	2	$27.7	13	9
General Merchandise	4	$6.7	18	16
Furniture/Furnishings	4	$12.3	48	35
Miscellaneous Retail	12	$1.4	98	56
Totals	**65**	**$6.2**	**557**	**466**

* Average annual revenue for fiscal years 2002 - 2017

Table 2: Descriptive Statistics

Variable	UCR Method (Recognition phase)	N	M	SD	Min	Med	Max	Skewness	Kurtosis
Panel A									
EPS$_{it}$	**All Methods**	**557**	**0.05**	**0.07**	**0.00**	**0.02**	**0.64**	**3.91**	**19.96**
	Delayed Recognition	**357**	**0.04**	**0.06**	**0.00**	**0.02**	**0.46**	**3.08**	**11.39**
	Initial	42	0.04	0.05	0.00	0.03	0.31		
	Ongoing	315	0.04	0.06	0.00	0.02	0.46		
	Proportionate	**200**	**0.05**	**0.08**	**0.00**	**0.03**	**0.64**	**4.36**	**22.54**
	Initial	23	0.09	0.13	0.00	0.04	0.50		
	Ongoing	177	0.04	0.07	0.00	0.02	0.64		
Panel B									
FA$_{it}$	**All Methods**	**466**	**0.03**	**0.92**	**-16.00**	**0.03**	**5.00**	**-11.21**	**201.65**
	Delayed Recognition	**285**	**-0.00**	**1.15**	**-16.00**	**0.03**	**5.00**	**-9.41**	**134.26**
	Initial	29	0.32	0.97	-0.50	0.03	4.00		
	Ongoing	256	-0.04	1.17	-16.00	0.03	5.00		
	Proportionate	**181**	**0.07**	**0.31**	**-1.20**	**0.03**	**2.33**	**4.47**	**33.13**
	Initial	19	0.20	0.36	0.00	0.07	1.40		
	Ongoing	162	0.06	0.30	-1.20	0.03	2.33		

EPS = Difference between actual, annual reported EPS and a derived EPS adjusted for after-tax breakage
FA = Difference between 4th quarter consensus market analysts' EPS forecasts and actual reported EPS
N = number of firm-years

Table 3: General Linear Model Results for EPS by Method

Analysis of Variance

Source	DF	Adj. SS	Adj. MS	F-value	p-value
Total	556	2.784			
Method	1	0.007	0.007	1.57	0.211
Line of Trade	6	0.355	0.059	13.40	0.000*
Error	549	2.425	0.004		
Lack-of-Fit	5	0.056	0.011	2.59	0.025
Pure Error	544	2.369	0.004		

Coefficients

Term	Coef.	SE Coef.	T-value	p-value	VIF
Constant	0.046	0.005	9.94	0.000	
Method:					
0	-0.004	0.003	-1.25	0.211	1.05
Line of Trade:					
Apparel/Accessories	-0.015	0.006	-2.68	0.007*	2.26
General Merchandise	0.012	0.014	0.83	0.410	4.61
Food Stores	-0.025	0.016	-1.53	0.127	5.88
Hardware	-0.034	0.012	-2.88	0.004*	3.70
Furniture/Furnishings	0.030	0.009	3.20	0.001*	2.76
Restaurants	0.042	0.007	6.17	0.000*	2.28

EPS = Difference between actual, annual reported EPS and a derived EPS adjusted for after-tax breakage.
Method is coded as 0 = Delayed Recognition Method and 1 = Proportionate Method
$R^2 = 12.90\%$; Adj. $R^2 = 11.79\%$; * $p < 0.05$

Table 4: General Linear Model Results for EPS by Method by Recognition Phase

Initial Recognition

Analysis of Variance

Source	DF	Adj. SS	Adj. MS	F-value	p-value
Total	64	0.522			
Method	1	0.044	0.044	6.12	0.016*
Line of Trade	6	0.074	0.012	1.70	0.136
Error	57	0.414	0.007		
Lack-of-Fit	5	0.151	0.030	5.98	0.000
Pure Error	52	0.263	0.005		

Coefficients

Term	Coef.	SE Coef.	T-value	p-value	VIF
Constant	0.078	0.016	4.73	0.000	
Method					
0	-0.028	0.011	-2.47	0.016	1.04
Line of Trade					
0	-0.031	0.021	-1.46	0.150	2.20
1	0.024	0.039	0.60	0.551	3.20
2	-0.005	0.054	-0.09	0.927	4.96
3	-0.068	0.054	-1.27	0.211	4.92
4	0.101	0.039	2.57	0.013	3.20
5	0.000	0.024	0.01	0.995	2.21

$R^2 = 20.70\%$; Adj. $R^2 = 10.96\%$; * p < 0.05

Ongoing Recognition

Analysis of Variance

Source	DF	Adj. SS	Adj. MS	F-value	p-value
Total	491	2.250			
Method	1	0.000	0.000	0.00	0.971
Line of Trade	6	0.334	0.056	14.07	0.000*
Error	484	1.916	0.004		
Lack-of-Fit	5	0.013	0.003	0.64	0.672
Pure Error	479	1.903	0.004		

Coefficients

Term	Coef.	SE Coef.	T-value	p-value	VIF
Constant	0.041	0.005	8.64	0.000	
Method					
0	-0.000	0.003	-0.04	0.971	1.06
Line of Trade					
0	-0.013	0.006	-2.20	0.028	2.30
1	0.005	0.015	0.34	0.733	5.03
2	-0.029	0.017	-1.72	0.087	6.06
3	-0.029	0.012	-2.49	0.013	3.61
4	0.023	0.009	2.51	0.012	2.75
5	0.049	0.007	7.05	0.000	2.32

$R^2 = 14.85\%$; Adj. $R^2 = 13.62\%$; * p < 0.05

Method is coded as 0 = Delayed Recognition Method and 1 = Proportionate Method
Line of Trade is coded as 0 = Apparel/Accessories; 1 = General Merchandise; 2 = Food Stores; 3 = Hardware; 4 = Furniture/Furnishings; and 5 = Restaurants

Table 5: General Linear Model Results for FA by Method

Analysis of Variance

Source	DF	Adj. SS	Adj. MS	F-value	p-value
Total	465	395.834			
Method	1	0.989	0.989	1.17	0.280
Line of Trade	6	8.741	1.457	1.73	0.113
Error	458	386.517	0.844		
Lack-of-Fit	5	7.375	1.475	1.76	0.119
Pure Error	453	379.142	0.837		

Coefficients

Term	Coef.	SE Coef.	T-value	p-value	VIF
Constant	0.031	0.071	0.44	0.663	
Method:					
0	-0.049	0.045	-1.08	0.280	1.08
Line of Trade:					
Apparel/Accessories	0.056	0.086	0.65	0.516	1.94
General Merchandise	0.065	0.206	0.32	0.741	3.44
Food Stores	0.055	0.269	0.20	0.839	5.17
Hardware	0.055	0.168	0.33	0.743	2.68
Furniture/Furnishings	0.075	0.150	0.50	0.616	2.41
Restaurants	0.058	0.104	0.55	0.580	1.97

FA = Difference between 4th quarter consensus market analysts' EPS forecasts and actual reported EPS
Method is coded as 0 = Delayed Recognition Method and 1 = Proportionate Method
R^2 = 2.35%; Adj. R^2 = 0.86%; * $p < 0.05$

Table 6: General Linear Model Results for FA by Method by Recognition Phase

Initial Recognition

Analysis of Variance

Source	DF	Adj. SS	Adj. MS	F-value	p-value
Total	47	28.789			
Method	1	0.426	0.426	0.66	0.421
Line of Trade	6	2.914	0.486	0.76	0.609
Error	40	25.722	0.643		
Lack-of-Fit	4	0.356	0.089	0.13	0.972
Pure Error	36	25.366	0.705		

Coefficients

Term	Coef.	SE Coef.	T-value	p-value	VIF
Constant	0.095	0.167	0.57	0.573	
Method					
0	0.100	0.123	0.81	0.421	1.09
Line of Trade					
0	0.228	0.219	1.04	0.305	1.81
1	-0.295	0.423	-0.70	0.489	2.69
2	-0.255	0.511	-0.50	0.620	3.45
3	0.036	0.508	0.07	0.944	3.40
4	-0.175	0.430	-0.41	0.686	2.78
5	0.527	0.279	1.89	0.066	1.93

$R^2 = 10.65\%$; Adj. $R^2 = 0.00\%$; * $p < 0.05$

Ongoing Recognition

Analysis of Variance

Source	DF	Adj. SS	Adj. MS	F-value	p-value
Total	417	363.867			
Method	1	1.624	1.624	1.88	0.171
Line of Trade	6	9.224	1.537	1.78	0.101
Error	410	353.789	0.863		
Lack-of-Fit	5	8.633	1.727	2.03	0.074
Pure Error	405	345.156	0.852		

Coefficients

Term	Coef.	SE Coef.	T-value	p-value	VIF
Constant	0.030	0.078	0.39	0.700	
Method					
0	-0.066	0.048	-1.37	0.171	1.08
Line of Trade					
0	0.033	0.094	0.35	0.724	2.01
1	0.132	0.231	0.57	0.567	3.64
2	0.100	0.308	0.33	0.745	5.68
3	0.052	0.178	0.29	0.771	2.64
4	0.096	0.160	0.60	0.552	2.40
5	0.006	0.113	0.05	0.960	2.02

$R^2 = 2.77\%$; Adj. $R^2 = 1.11\%$; * $p < 0.05$

Method is coded as 0 = Delayed Recognition Method and 1 = Proportionate Method
Line of Trade is coded as 0 = Apparel/Accessories; 1 = General Merchandise; 2 = Food Stores; 3 = Hardware; 4 = Furniture/Furnishings; and 5 = Restaurants