The controversy of deferred tax assets and liabilities classifications and some remedies

Buagu N. Musazi
Morgan State University, Baltimore Maryland

Bilal Makkawi
Morgan State University, Baltimore Maryland

ABSTRACT

The Accounting Standards Update (ASU) 2015-17 discontinued the current deferred tax assets and liabilities classification. Deferred tax assets and liabilities are now all classified as noncurrent on balance sheets. ASU 2015-17 was issued in December 2015 on the basis that the classification of tax assets and liabilities into current and noncurrent was not justifiable on a cost-benefit basis. Relying on prior research and our industry analysis, it is demonstrated here that under certain circumstances current deferred tax assets and liabilities are decision-useful; have differential liquidity effects across industries, and that most deferred tax assets and liabilities are current. With the adoption of ASU 2015-17, deferred tax assets and liabilities that are known to certainly reverse within one year are understated. Therefore, relevant information is omitted. About 90 percent of companies are expected to varying degrees to experience virtual decreases (and 10 percent expect virtual increases) in working capital with the decreases exceeding 10 percent in several industries. Finally, four recommendations are made on how ASU 2015-17 can be structured to be consistent with the conceptual underpinnings as well as empirical research findings regarding deferred tax assets and liabilities.

Keywords: Current, Noncurrent, Deferred tax assets and liabilities, ASU 2015-17, Liquidity, Working capital, Decision-useful.

1. INTRODUCTION

In November 2015, the Financial Accounting Standards Board (FASB) issued *Accounting Standards Update* No. 2015-17, *Income Taxes (Topic 740), Balance Sheet Classification of Deferred Taxes* (hereafter referred to as ASU 2015-17) to simplify Accounting Standards Code (ASC) 740 (FASB, November 2015). With earlier adoption allowed, ASU 2015-17 was effective after December 15, 2016 for public business entities and after December 15, 2017 for other entities. ASU 2015-17 reclassifies balance sheets' current deferred tax assets and liabilities as noncurrent. In addition, it aligns ASC 740 to be consistent with International Financial Reporting Standards (IFRS), which uses the noncurrent classification only. FASB's major reason for ASU 2015-17 was that the current tax assets and liabilities classification was not cost-effective.

This study argues that given the longstanding controversy in the regulatory history of accounting for deferred taxes assets and liabilities, FASB rushed to pass ASU 2015-17 by relying on a small sample of respondents and ignoring existing empirical research on deferred tax accounting. Using findings from prior empirical research related to the economic effects of liquidity-affecting reclassifications as well as our industry-based liquidity analysis of ASU 2015-17, it is demonstrated that FASB could have designed ASU 2015-17 differently because deferred tax assets and liabilities have real effects. Linking ASU 2015-17 to prior empirical research findings on the importance and structure of deferred tax assets and liabilities might lead to a different informed accounting standard and possibly assist in FASB's reformulation of income tax accounting disclosures. The study concludes by offering four different accounting standards recommendations consistent with the conceptual framework and theoretical integrity of deferred taxes accounting. Specifically, this study recommends to: a) classify as current if a deferred tax asset or liability reversal time is certainly within one year or operating cycle, b) disclose the probable level of current deferred tax assets or liabilities when such assets or liabilities are material, c) make industry-based standards for deferred taxes assets and liabilities where this is not automatically covered by alternative (b), and d) report the related accruals (e.g. installment sales receivables) net of taxes.

Analyzing the general impact of ASU 2015-17 is useful to a spectrum of financial statement users with different needs. One of the frequently asked questions in PricewaterhouseCoopers' ASU 2015-17 discussion forum was about its ancillary impacts (PWC 2015). Such questions epitomize the broad quest by users to understand the general effects of ASU 2015-17. The spectrum of users includes auditors, analysts, creditors, rating agencies, researchers, and accounting standards-setting entities. Auditors rely on industry liquidity measures in planning their audits and in their assessments of overall audit risks. Empirical researchers using accounting financial data from the years affected by the ASU 2015-17 change may obtain biased results if they fail to control for shifts in liquidity parameters as a result of the adoption of ASU 2015-17. In addition, shifts in liquidity ratios due to ASU 2015-17 might adversely affect liquidity-based debt covenants. The aforementioned issues are important for financial data users to know because they are a result of shifts in liquidity measures that are attributed not to economic substance but to mere reclassification of deferred tax assets and liabilities.

2 THE REGULATORY CONTROVERSY IN DEFERRED TAX ASSETS AND LIABILITIES CLASSIFICATIONS

2.1 The 1960-2018 Period

FASB has discussed the primary reason it introduced ASU-2015-17:

> Stakeholders informed the Board [i.e. FASB] that the [current deferred taxes in 2015] requirement results in little or no benefit to users of financial statements because the classification does not generally align with the time period in which the recognized deferred tax amounts are expected to be recovered or settled. In addition, there are costs incurred by an entity to separate deferred income tax liabilities and assets into a current and noncurrent amount. (FASB 2015, p. 1)

Unlike the 1960s debate on current/non-current classification that led to Accounting Principles Board (APB) No. 11 and the 1980 debate that led to Financial Accounting Standard (FAS) 37, what is new here is that, through ASU 2015-17, FASB introduced a cost-benefit perspective in the deferred tax asset and liabilities classification discourse. This cost-benefit perspective was largely ignored in the 1960s debate. Instead, the 1960s debate centered on two competing views: basing the current/noncurrent classification on the classification of the asset that generated the deferred tax asset (or liability) or basing the classification on when the deferred tax asset would be recovered (when the liability would be liquidated), regardless of the current/noncurrent classification of the underlying asset that generated the tax asset or liability. For instance, installment sales generate accounts receivables with deferred tax liabilities. Because accounts receivables are classified as current, the related deferred tax liabilities should also be current regardless of whether they would be ever be liquidated. As will be discussed below, the Securities and Exchange Commission (SEC) ignored the argument relating current/noncurrent classifications to the actual timing of asset recovery or liability liquidation (see the exchange letters between Axelson (1966a; 1966b) and Zeff (1966)). Thus, by accepting FASB's adoption of ASU 2015-17 in 2015, it appears the SEC reversed itself from its 1960s position.

The opponents of the current classification of deferred tax assets and liabilities are not new. Fearing the perceived decrease of their working capital prior to 1965, some industries pushed for the removal of the current classification. Axelson (1966a; 1966b), advocating for the retail industry, pushed the APB not to standardize the current deferred tax liability classification in place of noncurrent classification because it would be misleading for the measurement of the retail industry's working capital at that time. Practitioners supporting retail industry interests argued that it is wrong to base a liability classification on the asset that generated the liability instead of basing the liability classification on its liquidation timeline (Zeff 2007). Deferred taxes are never liquidated, especially under installment sales that are typical in the retail industry (Axelson 1966a). According to the opponents of current classification of deferred tax liabilities, installment sales continuously generate deferred tax liabilities: New installment sales deferred taxes replace paid-off current deferred taxes. Therefore, net deferred tax current liabilities are not materially affected on the balance sheet. It is this argument that ASU 2015-17 appears to advance.

The SEC, however, did not yield to the current classification opponents. The 1960s lack of a clear accounting standard for the classification of deferred tax assets and liabilities resulted in considerable reporting diversity between companies. For example, some companies reported receivables net of related deferred taxes, while others reported noncurrent and/or current deferred tax liabilities depending on what provided them with better liquidity ratios. The SEC wanted to end such practices, especially in the retail industry. Acting on a proposal from Arthur Andersen and the SEC, the APB issued a widely circulated exposure draft amending paragraph 7 of Accounting Research Bulletin (ARB) 43, Chapter 3A, as follows:

> 10. Whenever it is appropriate to record deferred income taxes, such deferred taxes should be classified as a current liability in the balance sheet to the extent that they are related to current assets which give rise to the tax deferment (APB 1965).

The proposal, however, faced tremendous resistance from key constituents, including some of the then-significant Big Eight accounting firms who were under client pressure, especially from the retail industry. As already mentioned, the firms' argument was that deferred taxes are rarely paid and that current liabilities should be limited to taxes payable within a year or within the operating cycle, whichever is longer. The APB yielded on September 16 and 17, 1965, with a 14-2 vote to drop the SEC-backed amendment for current deferred liability classification. Within three months, however, on December 7, 1965 the SEC, contrary to the APB decision, issued *Accounting Series Release (ASR) No. 102* (SEC 1965). It required any tax liabilities associated with current installment sales receivables to be classified as current. ASR No.102 was adopted by APB No. 11 in Par. 57 in 1967 (APB 1967)

APB No. 11 required deferred tax asset or liability classification to be linked to the classification of the underlying asset or liability that generated the tax asset/liability. However, there were tax deferred assets or liabilities that could not be linked to a particular asset or liability. Therefore, in 1980, FASB amended APB No. 11 by introducing FAS 37 to accommodate such deferred tax assets and liabilities. These deferred tax assets and liabilities were to be classified depending on the expected reversal date of the tax deferral. In 1987, APB No. 11 was superseded by FAS 96 with ASR No. 102 and FAS 37 classifications continued in par. 24 of FAS 96. Similarly, in 1992 FAS 109 par. 41 (now ASC 740-10-[7:10]) superseded FAS 96 par. 24. Effective December 2017, ASU 2015-17 amended ASC 740-10-[7:10] effectively ending the 1965 ASR No. 102 by completely removing the current classification.

It should be noted however, that the general definition of current assets and liabilities classification in contemporary U.S. GAAP Accounting Standards Code (ASC) 210.10.45 does not clearly categorize deferred current tax assets. The closest definition is for current deferred tax liabilities in ASC 210.10.45.8C i.e. "Debts that arise from operations directly related to the operating cycle, such as accruals for wages, salaries, commissions, rentals, royalties, and income and other taxes." Clearly, unlike prior arguments, this definition does not tie the current classification to an underlying asset nor when the liability will be liquidated but to "operations related to the operating cycle". In addition, Conceptual Framework 6 par. 240-241 does not commit to a clear definition and classification of deferred tax assets and liabilities (FASB 1985). This implies that the current/non-current classification of deferred tax assets and liabilities is still controversial. The current and noncurrent reclassifications of assets and liabilities by managers have been empirically linked to earnings management (e.g. Kerstein and Rai (2007)), debt ratings, and stock values (e.g. Gramlich, Mayew and McAnally (2006)).

2.2 FASB's Heuristic Deferred Tax Assets and Liabilities Declassification in ASU 2015-17

The foregoing historical context highlights an important backdrop on which the classification of deferred tax assets and liabilities standards ought to be made assuming the fundamental economic substance of deferred tax assets and liabilities have not changed over time. There are procedural and conceptual weaknesses in FASB's basis for ASU 2015-17 that need to be addressed. Procedurally, FASB received only 29 comments during the proposal period, most of which were in favor of ASU 2015-17. In addition, there were Internet discussion forums for ASU 2015-17 whose participation numbers are not easy to determine (for instance, see PWC (2015)). As a matter of practice, the optimal number of public responses to FASB in order to provide credible input is unknown, but a total of 29 comments appears to be low compared to the 67 comments received in 1980 for the Exposure Draft to amend APB No. 11, which led to FAS 37 (FASB 1980).

FASB appears to interpret the low response as an indication of the lack of importance of the current/noncurrent deferred tax asset and liability classification. However, there are other reasons that can explain the lackluster number of comments: First, financial statement preparers who were in favor of ASU 2015-17 might have not argued against it because it was going to reduce their accounting costs. Typically, constituents who will be adversely affected by the final outcome tend to self-select and respond to FASB with comments.[1] Second, companies that know of an accounting flaw (current assets being stated as noncurrent) would be caught in Gresham's law (Hall 1966).[2] In other words, companies that know that their deferred assets or liabilities are definitively current will report them as noncurrent to remain competitive because their competitors in the financial markets are doing the same. For instance, in 2015, Boeing restated all of its working capital from 2011 by invoking ASU 2015-17. Boeing competitors in capital markets would do the same to stay competitive even if they knew their deferred tax assets ought to be classified as current.

Third, as mentioned above, the adversely affected constituencies (financial statements users) are expected to respond to FASB in large numbers. Deferred tax accounting is too complex for many users to decipher, and they naturally would not provide many meaningful comments. Indeed, FAS 109 (now ASC 740) Post-Implementation Review by the Financial Accounting Foundation (FAF) found that many users do not understand deferred tax accounting (FAF 2013). However, research shows that deferred tax assets and liabilities are decision-useful in industries in which they are material.[3] Therefore, the current/noncurrent breakdown of deferred tax assets and liabilities may still be useful in some industries.

The "Board acknowledged that the noncurrent classification for all deferred tax liabilities and assets is not pure conceptually" (FASB 2015, p. 12) and that it was working on improving income tax disclosures possibly to compensate for the deficiency. However, the July 2016 Exposure Draft (FASB July 2016) did not contain any provision for current/noncurrent deferred tax disclosure improvements.

---

[1] This is akin to low voter turnout when the expected outcome is desired by the majority of voters.

[2] Gresham's law says that bad money chases away good money in the economy. People will hoard their good money and let their bad money circulate in the economy.

[3] Refer to Hall (1966) and Zeff (2007; 1966) for compelling, detailed defenses of the current and noncurrent classifications of deferred tax assets and liabilities.

Empirically, it is posited here that there are ways to find quantitative solutions to this issue that FASB could probably have considered. Consistent with Schipper (2010), FASB acknowledges that its "assessment of the costs and benefits of issuing new guidance is unavoidably more qualitative than quantitative because there is no method to objectively measure the costs to implement new guidance or to quantify the value of improved information in financial statements" (FASB 2015, p. 14). FASB could have resorted to academic research for the basis of ASU 2015-17 benefits, as this article endeavors to do. However, it should be noted that the Conceptual Framework allows materiality constraints to compromise accounting theory if necessary. Therefore, heuristic accounting standards can be justified if materiality is not an issue. We believe that this may not be the full case in the context of ASU 2015-17 because most deferred tax assets are current and because academic research suggests that deferred tax assets and liabilities are decision-useful.[4]

3 EMPIRICAL RESEARCH IMPLICATIONS ON DEFERRED TAX ASSETS AND LIABILITIES CLASSIFICATIONS

3.1 Implications from Prior Research

As already alluded to, the current/noncurrent classification issue was so serious prior to 1965 that while the APB and American Institute of Certified Public Accountants (AICPA) were still contemplating whether to conduct a research study on the subject, the SEC unilaterally and unexpectedly issued ASR No. 102, without a public hearing (Hall, 1966). Several empirical studies have been conducted since the issuance of ASR No. 102 in 1965. Therefore, it is now possible to use research in the formulation of standards for these classifications. This study examines the implications of prior empirical research evidence on the validity of ASU 2015-17 by focusing on research areas of deferred taxes assets and liabilities composition, information content, and liquidity effects.

3.1.1 Composition of deferred taxes assets and liabilities

Research shows that the composition of deferred taxes assets and liabilities is made up mostly of current deferred tax assets and liabilities. Therefore, removing the current classification is at best misleading to financial statements users. To fully understand the magnitude of the potential understatement of the current deferred tax assets and liabilities classification, it is important to first know the quantitative composition of deferred taxes assets and liabilities prior to ASU 2015-17. The quantitative structure of deferred tax assets and liabilities is analyzed in Table 1 in which relevant tax assets and liabilities obtained from Table 1 and Table 2 in Laux's (2013) study are examined. Laux's Table 1 and Table 2 provide a descriptive decomposition of hand-collected data from 200 companies from 1994 to 2007 or 2,763 firm-years. It is believed that Laux's sample is fairly representative. Laux's data exclude Utilities, Financial Institutions, Real Estate Investment Trusts, and foreign incorporated companies. Laux variables in his Table 1 and Table 2 are scaled by average assets. The original

[4] Following FASB's Conceptual Framework (FASB, July 2006), 'materiality constraint' refers here to a point at which an item or amount changes from being immaterial to being material in a user's decision making process.

levels of deferred tax assets and liabilities are recreated by multiplying the respective scaled deferred tax assets and liabilities by the level of reported average assets of $14,694 million.

For the purposes of his study, Laux does not, and need not, classify tax assets and liabilities into current and noncurrent. However, in order for us to illustrate our study's point, such classification is needed. Table 1 shows that the majority of deferred tax assets from the "GAAP-first" category, about 53.85 percent, are generated from accrued expenses. Laux (2013) demonstrates that deferred tax assets and liabilities create real cash flow payment effects depending on whether the temporary difference that created them appeared first on GAAP financial statements GAAP-first and later reappeared on a tax return (e.g. warranty expense) or if it appeared on a tax return first ("Tax-first") and later appeared on the GAAP income statement (e.g. accelerated depreciation). Tax-first items do not result in future tax payments; therefore, they are deemed less decision-useful.

Laux (2013) further notes that most accrued expenses "are typically short-term assets that result from accruals such as accrued vacation, bad debt expense, warranty reserves, restructuring charges, and other similar expenses" (p. 1368). In other words, based on Laux's 2013 data, ASU 2015-17 is misclassifying over half of decision-useful current deferred tax assets and liabilities as noncurrent. The implication is that if FASB have to settle on using one classification, then it should classify as current rather than noncurrent as amended by ASU 2015-17 because most deferred tax assets are current.

3.1.2 The problem of understated current deferred tax assets and liabilities

Prior to the implementation of ASU 2015-17, companies classified deferred tax assets and liabilities as current and noncurrent depending on the classification of the underlying asset or liability that generated the potential tax benefit or obligation. For other deferred tax assets and liabilities such as net operating losses (NOL) and tax credit carryforwards unrelated to any balance sheet classified items, their current or noncurrent classification was based on the expected deferred asset or liability reversal date. The implication is that current or noncurrent classifications may be misstated depending on the level of uncertainty in the expected reversal dates. FASB also acknowledges that "the noncurrent classification for all deferred tax liabilities and assets is not pure conceptually" (FASB 2015, p. 12).[5] Removing the current classification by ASU 2015-17 does not solve the misstatement problem either. Instead, it creates another one: current deferred tax assets and liabilities are now be commingled with noncurrent asset and liabilities even in installment sales and depreciation situations, which are known to reverse in the following year. For instance, some depreciation-related deferred taxes may be noncurrent depending on the year in which book-tax depreciation reversal takes place.

3.1.3 Information content of deferred tax assets and liabilities

Generally, empirical research supports, with caveats, the irrelevance of the classifications of current and noncurrent deferred taxes except for large amounts of deferred tax assets and liabilities (Chludek 2011). The caveats are that the decision-usefulness of deferred tax assets and liabilities depends on their dollar amount, (Chludek 2011; Cheung *et al.* 1997) and their contents

[5] A similar point was made in the 1960s by Zeff (1966).

(Laux 2013). Therefore, decision-usefulness of such assets and liabilities will be compromised by ASU 2015-17, under which their dollar amounts are material and their content is not properly disclosed by disaggregating it into current and noncurrent. The current classification is linked to liquidity assessment. Other studies (e.g. Laux 2013) have found deferred tax assets and liabilities to be economically significant in predicting cash flows. Bauman and Shaw (2016) found that the ASU 2015-17 classification of all deferred taxes assets and liabilities as noncurrent adversely affects the usefulness of financial information to equity investors. Cheung *et al*. (1997) analyzed data from the 1975–1994 period, finding "that deferred tax information appears to be more useful in companies with large amounts of deferred taxes" (p. 14) and that such information enables the prediction of tax-related cash flows. Such tax-related cash flows may not appear favorably in liquidity measures of companies with high amounts of deferred taxes. For instance, probably because of its high amounts of deferred tax liabilities, Boeing 2015 annual report utilized the ASU 2015-17 implementation timeline to retroactively restate working capital from $8.5 to $11.3 billion for 2011, $12.3 to $16.7 billion for 2012, $13.6 to $19.8 billion for 2013, and $11.1 to $19.5 billion for 2014. In other words, Boeing's current liabilities are now understated because of ASU 2015-17.

The current/noncurrent classification characterizes the contents of a firm's deferred tax assets and liabilities. As already mentioned above, using data from 1994 to 2007 for 200 U.S. companies, Laux (2013) makes a distinction between the information content of deferred tax assets and liabilities arising from revenue or expenses that appear on a tax return before appearing on a GAAP income statement or Tax-first (e.g. unearned revenue and deferred tax assets and liabilities) and those that appear on GAAP income statements before appearing on tax returns or GAAP-first such as warranty expenses. The GAAP-first items, most of which are current, have future cash flow effects and are empirically decision useful based on stock price reactions. The Tax-first items do not result into future tax payments; therefore, they are deemed less decision-useful.

Such findings of the effect of deferred taxes on cash flows provide additional evidence for the importance of more detailed tax information, especially in situations in which current deferred tax liabilities are material. This need for more detailed tax classifications could address the results of a 2013 FAF survey that found that the "income tax information provided in the financial statements may not be detailed enough for investors to analyze the cash effects associated with income taxes, particularly current period taxes paid by jurisdiction (e.g., U.S. and foreign), and estimate future tax payments." (FAF 2013, p.8). Otherwise, the adoption of ASU 2015-17 makes financial statements even less detailed than before and therefore makes them less decision-useful. Moreover, because some deferred tax assets and liabilities have real cash effects, removing them from the current category diminishes the ability of liquidity ratios to capture the real liquidity condition of a company.

3.2 Simulation of Liquidity Effects across Industries

3.2.1.1 The call for industry-based research

With respect to liquidity, our examination emphasizes ASU 2015-17's diverse implications on liquidity ratios across various industries, especially in industries that are installment-sales intensive. Industry variation in levels of deferred tax assets and liabilities were featured in the 1960s debate on deferred taxes. While advocating primarily for the retail industry, Axelson

(1966a) said he could not comment on the effect of the SEC's 1965 ASR No. 102 on other industries in the absence of a detailed study discussing ASR No. 102's pros and cons for other industries. He concluded by suggesting that if there were differential industry impacts, then "it may be that industry accounting standards are needed after all, rather than a uniform standard imposed on retailers where it does not apply" (p. 25). Thus, even the call to utilize empirical research in deferred tax asset (liability) classification regulation across industries has been longstanding.

3.2.2 Shifts in working capital

Assessing the differential industry impacts of ASU 2015-17 is important because it allows for possible differential treatment of the current/noncurrent classification across industries. ASU 2015-17's reclassification of current deferred tax assets and liabilities as noncurrent has had the unintended consequence of changing the relative liquidity measures across industries due to the decreased total current assets and liabilities. Therefore, up or down shifts in liquidity measures such as working capital in the post-implementation years across industries are expected without changing the actual liquidity of the respective firms.

Table 2 which is based on a sample of the working capital of 4,237 companies across 25 industries, indicates how working capital has virtually changed.[6] The working capital estimates are based on companies in the Compustat™ database for the pre–ASU 2015-17 period of five years from 2010 through 2014. The post-2016 average working capital is obtained by reclassifying pre-2016 current deferred tax assets and liabilities to noncurrent deferred taxes as required by ASU 2015-17. The pre-2016 and post-2016 industry working capital changes show an overall average decrease (Column 5) of $28.77 million per company. This decrease is higher without the Aerospace industry, which had an increase of $106.47 million in working capital and the Wholesale Trade industry, which had an increase of $11.76 million in working capital.

To assess the within-industry up or down changes, companies in Table 2 are partitioned into two subsamples of positive pre-and-post ASU 2015-17 (Panel B) working capital changes and negative pre-and-post ASU 2015-17 (Panel C) working capital changes. These partitions are necessary because there is no established method for calculating percentage changes for mixed negative pre-ASU 2015-17 and positive post-ASU 2015-17 numbers. For instance, one cannot calculate a percentage change from a negative working capital of $15.00 million to a positive working capital of $2.00 million. Panel B shows that 89.82 percent (combined from Columns 6 and 8) of companies are expected to experience an average of 1.99 percent to 5.03 percent decrease in working capital. Only 9.35 percent (combined from Columns 7 and 9) of companies are expected to experience a 12.79 percent to 21.74 percent average increase in working capital. The remaining 0.83 percent of companies are expected to have their working capital change from negative to positive or vice versa because of ASU 2015-17. The largest working capital average increase (21.74 percent) is in Panel C (companies with negative pre and post-ASU 2015-17 working capital) or 4.45 percent of all companies.

Table 3 displays the expected material working capital changes across industries. For the purposes of this study, changes are considered to be significant and material if the working capital change is at least 10 percent in at least 10 percent of the companies in an industry. Based

[6] It is virtual working capital change because the real working capital was not affected by the accounting current and noncurrent classifications of deferred tax assets and liabilities.

on this ad hoc standard, financial statement users in the Utilities, Aerospace, Rail and Ship Building, Wholesale Trade, Retail Trade, Transportation and Warehousing, Publishing-related Businesses, and Healthcare Services industries as shown in Table 3 are expected to experience material, mostly upward, shifts in liquidity ratios. The Healthcare Services industry is expected to be disproportionately affected: 15.70 percent of this industry is expected to experience working capital increases averaging 30.05 percent while 65.94 percent are expected to experience decreases in working capital averaging 14.36 percent. Besides the Wholesale Trade and Healthcare Services industries, no material working capital decreases in other industries are expected to be observed.

3.2.3 Impact of ASU 2015-17 on installment sales industries

Given the 1960s accounting firestorm brought on by the Retail Trade industry's opposition to the current deferred tax assets and liabilities classification, one would expect this industry to have the highest increase in working capital after ASU 2015-17. This phenomenon is observed in the related Wholesale Trade industry with an average virtual increase of $11.76 million (see Table 2, Column 5). However, the Retail Trade industry is expected to virtually lose about $19.35 million in working capital per firm. It should be mentioned that this working capital decrease is somewhat a blurred number: In Table 2, Panel A, which includes both positive and negative pre and post-ASU 2015-17 working capital, companies that are sensitive to ASR No. 152 (i.e. installment sales industries such as Wholesale Trade and Aerospace) are dominated by positive working capital companies. Further analysis, as illustrated in Table 3, shows that 12.71 percent of companies in the Retail Trade industry will have a 14.24 percent increase in working capital. No Retail Trade industry companies are expected to experience a decrease in working capital due to ASU 2015-17. Thus the Retail Trade industry is one of the seven industries (excluding the Wholesale Trade and Healthcare Services industries, see Table 3) that will materially benefit from ASU 2015-17.

Thus, after over 50 years, this analysis to some extent empirically validates Axelson's 1966 assertion that the current classification negatively affects the Retail Trade's industry working capital because the industry carries considerable deferred tax liabilities. Our analysis shows that this does not affect the entire Retail Trade industry: About 13.00 percent of the industry will 'benefit' from having improved working capital due to ASU 2015-17. However, we surmise that a higher percentage of Retail Trade companies would have higher working capital if it was not for the increased customer use of revolving credit since the 1960s. This appears to have reduced retailers' dependency on installment sales and deferred taxes thereto. Because credit card sales are recognized as cash sales by GAAP and the Internal Revenue Service, there is not as much need for installment accounting as there was up to the 1960s.

One implication of this study is that installment sales-intensive industries' liquidity measures have been chronically understated due to the current deferred tax liabilities classification ushered in by the SEC, and vice versa, over the past 50 years. ASU 2015-17 will, therefore, work in favor of such industries to their pre-1965 advantage, while most other industries will experience virtual liquidity decreases. Indeed, Table 3 shows in which industries a significant (10.00 percent or more) number of companies will virtually gain working capital. Such favorable changes in liquidity measures may explain the retroactive adoption of ASU 2015-17 from 2011 instead of 2017 by some companies with high percentages of current deferred tax

liabilities out of total current liabilities such as Boeing (15.00 percent) and Ryerson Holding Corporation (21.00 percent).

4 SUMMARY, RECOMMENDATIONS, AND CONCLUSIONS

4.1 Summary

This paper evaluates the ASU 2015-17 removal of the current deferred tax assets and liabilities classification from balance sheets in light of accounting theory, academic research, practical significance, and the decision-usefulness of current deferred tax assets and liabilities across industries. While there are theoretically deferred tax assets and liabilities that reverse within a year or operating cycle whichever is longer, FASB and some practitioners' surveys argue that the benefit of decision-usefulness of current/non-current classifications of deferred tax assets and liabilities does not justify the related accounting costs.

Using prior empirical research, this study questions the validity of the perceived lack of deferred tax assets and liabilities' decision-usefulness in general and current assets and liabilities in particular. Research shows that the level and contents of deferred tax assets and liabilities, of which over half tend to be short term, are relevant in as far as the prediction of future cash outflow and stock price reactions are concerned under certain exceptions (Chludek 2011; Cheung *et al*. 1997; Laux 2013).

This study empirically demonstrates that there will be mixed working capital realignments across industries: About 10 percent of all companies will experience material increases in working capital, while 90 percent will see immaterial decline in working capital. Installment-sales-intensive companies whose liquidity measures were adversely affected by the SEC's ASR No.152 in 1965, notably Retail Trade and Wholesale Trade industries, will benefit most.

4.2 Recommendations

Given that there is still some arbitrariness in some deferred tax asset and liabilities classifications, four recommendations are advanced here: First, ASC 720 revisions should only declassify tax assets and liabilities, such as NOL, business credits, and others, whose reversal timing is always uncertain, but keep the current classification on tax assets and liabilities whose reversal time is known with certainty. For instance, based on this study, roughly 10 percent of companies will experience material (as defined above) working capital increases due to deferred tax assets and liabilities current/noncurrent declassification. However, this does not mean that the related future tax payments will become noncurrent as well. Therefore, increases in working capital will overstate actual liquidities (and decreases will understate actual liquidities); this compromises balance sheet reliability, as expected from the Conceptual Framework.

Second, removal of the current classification should be followed by revised mandatory disclosures of what would be the most probable amount of current deferred tax assets or liabilities. Given the cited empirical research (for example, Bauman *et al*. (2016), Chludek (2011) and Cheung *et al.* (1997)) showing that large amounts of deferred taxes are decision-useful, such disclosures should be subject to some materiality thresholds. For instance, companies whose deferred tax assets or liabilities exceed 3.00 percent of current assets or liabilities may be required to classify them as current or noncurrent. Establishing a minimum

level of materiality threshold will not only reduce preparers' aggregate accounting cost but will be consistent with the Conceptual Framework, in which the cost of an accounting procedure is justified by the related information benefit. Interestingly, the initial standard under ARB No. 44 (1954) required partial recognition of deferred income taxes "only if the amounts are clearly material" (Committee on Accounting Procedure (CAP) 1954, par. 4).

Third, an industry-based standard was recommended by Axelson (1966a, p. 25). The data here supports the fact that industry variations are real with respect to the effect of deferred tax assets and liabilities on liquidity. This is probably why the SEC's ASR No.102 was limited to installment sales, which are prevalent in the Aerospace, Wholesale Trade, and Retail Trade industries. Clearly, the effects of deferred taxes are too diverse to deserve a one-policy-fits-all approach. ASU 2015-17's effects vary across industries depending on the amounts and content of deferred tax assets and liabilities. Filtering out more irrelevant items will create the materiality thresholds needed for recognition under Concept No. 5, par. 63 (FASB 1984). Therefore, a more accommodating accounting policy should be devised to diminish the loss of useful information. Otherwise the information content of deferred tax assets and liabilities becomes blurred.

Fourth and finally, this study reintroduces Hall's (1966) suggestion of reporting such items as net of related taxes. This eliminates the need for users to understand the complexities of income taxes. This net-of-tax approach to book-tax differences failed to gain traction in the 1960s' deferred tax controversy, but its proponents argued that it is easier to understand (see Dohr 1959; Powell 1959).[7] This addresses the deferred tax accounting complexity issue found by the FAF in the post-implementation review of SFAS 109 (now ASC 740): Complexity diminishes the utility of deferred tax accounting information to users (FAF 2013). This net-of-related-taxes approach also dovetails with FASB's Simplification Initiative (FASB n.d.). In addition, it is consistent with the Conceptual Framework (Defliese 1991): Reporting assets on an after-tax basis (e.g. adjusting accounts receivables for related taxes) is consistent with Concept No. 6, pars. 32 and 33. That is, "….*a*n entity's assets or their values are also commonly increased or decreased by other events and circumstances that may be partly or entirely beyond the control of the entity and its management, for example, price changes, interest rate changes, technological changes, impositions of taxes and regulations, discovery, growth or accretion, shrinkage, vandalism, thefts, expropriations, wars, fires, and natural disasters." (FASB 1985, par. 32.)

4.3 Conclusions

In conclusion, accounting-standards-setters are once more at crossroads between accounting theory and accounting practice in terms of decision-usefulness of the current deferred tax assets and liabilities balance sheet classification. Decision-usefulness is a powerful criterion in the Conceptual Framework. Given the efforts expended in the 1960s by the SEC to overrule the accounting establishment regarding the classification of deferred tax assets and liabilities for reasons that are still valid today, ASU 2015-17 should have rekindled the 1960s' debate before its release.[8] Central to the deferred tax assets and liabilities issue that has been salient since the 1950s and the present Conceptual Framework is the balancing of the related accounting costs

[7] For a thorough chronicle of deferred tax accounting's evolution from the 1930s through the 1990s, see Schultz and Johnson (1998).

[8] The SEC rarely overrules the accounting profession's standard-setting bodies, and this was one of those few cases (Zeff 2007).

borne by preparers against the information benefits to end users. So far, ASU 2015-17 appears to accommodate the accounting cost side, while the previous classification standard rooted in ASR No. 152 appeared to accommodate the end users. The optimal accounting standards—some recommended herein—should accommodate both sides. Otherwise, an actual cost-benefit analysis of accounting standards is impractical (Schipper 2010).

5 REFERENCES

Accounting Principles Board (APB). "Accounting for Income Taxes." *Opinion No.11.* New York: American Institute of Certified Public Accountants, 1967.

Accounting Principles Board (APB). "Exposure Draft of Tentative Opinion: Status of Accounting Research Bulletins." *Journal of Accountancy*, August 1965.

Axelson, Kenneth S. "NRMA Views on SEC Accounting Release No.102." *The Journal of Accountancy*, April 1966b: 27-32.

Axelson, Kenneth S. "Accounting for Deferred Taxes." *Financial Analysts Journal* 22, no. 5 (September-October 1966a): 23-26.

Bauman, Mark, and Kenneth Shaw. "Balance sheet classification and the valuation of deferred taxes." *Research in Accounting Regulation* 28, no. 2 (2016): 77-85.

Cheung, Josepin K., Gopal V. Krishnan, and Chung-Ki Min. "Does Interperiod Income Tax Allocation Enhance Prediction of Cash Flows?" *Accounting Horizons* 11 (December 1997): 1-15.

Chludek, Astrid K. "Perceived versus Actual Cash Flow Implications of Deferred Taxes—An Analysis of Value Relevance and Reversal under IFRS." *Journal of International Accounting Research* 10, no. 1 (2011): 1-25.

Committee on Accounting Procedure (CAP). "Declining-balance Depreciation." *Accounting Research Bulletins No.44.* New York: American Institute of Certified Accountants (AICPA), 1954.

Defliese, Phillip. "Deferred Taxes-More Fatal Flaws." *Accounting Horizons* 5, no. 1 (1991): 89-91.

Dohr, H. L. "Tax Allocation." *Journal of Accountancy* 107, no. 2 (1959): 19-20.

Financial Accounting Foundation (FAF). *On FASB Statement No. 109, Accounting for Income Taxes.* POST-IMPLEMENTATION REVIEW REPORT, Norwalk: FAF, November 2013.

Financial Accounting Standards Board (FASB). *Accounting Standard Update. Income Taxes Topic (740). Balance Sheet Classification of Deferred Taxes.* Financial Accounting Series, Norwalk: FASB, November 2015.

Financial Accounting Standards Board (FASB). *Conceptual Framework for Financial Reporting: Objective of Financial Reporting and Qualitative Characteristics of Decision-Useful Financial Reporting Information.* Financial Accounting Series, Norwalk: FASB, July 2006.

Financial Accounting Standards Board (FASB). "Proposed Accounting Standards Update:Income Taxes (Topic 740): Disclosure Framework—Changes to the Disclosure." Exposure Draft, Norwalk, July 2016.

Financial Accounting Standards Board (FASB). "Simplifying Accounting Standards ." Norwalk, n.d.

—. "Statement of Financial Accounting Concept No.5: Recognition and Measurement in Financial Statements of Business Enterprises." *CONCEPTS STATEMENTS.* 1984. https://www.fasb.org/jsp/FASB/Document_C/DocumentPage?cid=1218220132773&acceptedDisclaimer=true (accessed October 27, 2018).

—. "Statement of Financial Accounting Concepts No. 6: Elements of Financial Statements." *CONCEPTS STATEMENTS.* 1985.

https://www.fasb.org/jsp/FASB/Document_C/DocumentPage?cid=1218220132831&acceptedDisclaimer=true (accessed July 23, 2018).

Financial Accounting Standards Board (FASB). "Statement of Financial Accounting Standards No. 37 Balance Sheet Classification of Deferred Income Taxes: An Amendment of APB Opinion No. 11." July 1980.

Gramlich, Jeffrey D., William J. Mayew, and Mary Lea McAnally. "Debt reclassification and capital market consequences." *Journal of Business Finance and Accounting* 33, no. 7 (2006): 1189-1212.

Hall, William D. "Balance Sheet Classification of Deferred Income Taxes Arising from Installment Sales." *Financial Analysts Journal*, September-October 1966: 27-31.

Kerstein, Joseph, and Atul Rai. "Working capital accruals and earnings management." *Investment Management & Financial Innovations* 4, no. 2 (2007): 33-47.

Laux, Rick C. "The Association between Deferred Tax Assets and Liabilities and Future Tax Payments." *The Accounting Review* 88, no. 4 (2013): 1357–1383.

Powell, W. "Accounting Principles and Income -Tax Allocation." *New York Certified Public Accountant* 29, no. 1 (1959): 21-31.

PWC . "In depth: FAQ on applying simplified balance sheet classification of deferred taxes." *National Professional Services Group*. 12 17, 2015. http://www.pwc.com/us/en/cfodirect/publications/in-depth/fasb-faq-balance-sheet-classification-deferred-taxes.html (accessed July 2017).

Schipper, Katherine. "How can we measure the costs and benefits of changes in financial reporting standards?" *Accounting and Business Research* 40, no. 3 (2010): 309-327.

Schultz, Sally M., and Rozanne T. Johnson. "Income Tax Allocation: The Continuing Controversy in the Historical Perspective." *Accounting Historians Journal* 25, no. 2 (December 1998): 81-111.

Securities and Exchange Commission (SEC). "Balance Sheet Classification of Deferred Income Taxes Arising from Installment Sales." *Accounting Series Number 102*. Washington, DC.: Securuties and Exchange Commission, 1965.

Zeff, Stephen A. "Letters to the Journal: Disagreement on Deferred Taxes." *The Journal of Accountancy*, June 1966: 24.

Zeff, Stephen A. "The SEC Preempts the Accounting Principles Board in 1965: The Classification of the Deferred Tax Credit Relating to Installment Sales." *Accounting Historians Journal* 34, no. 1 (June 2007): 1-23.

Table 1: Level and Content Decomposition of Deferred Tax Assets and Liabilities (1994–2007, in millions)

Sources of Temporary Differences			Employee Benefits	Accrued Expenses	Other	Revenue	Depreciation	Total
GAAP-first	Tax Assets	Amount	235.11	308.58	29.39			573.07
		%	41.03	53.85	5.13			100
	Tax Liabilities	Amount				(58.78)		(58.78)
		%				100		100
Tax-first	Tax Assets	Amount				29.39		29.39
		%				100		100
	Tax Liabilities	Amount			(73.47)		(617.15)	(690.63)
		%			10.64		89.36	100

Source: The figures are recomputed from Laux (2013).
Note: In the GAAP-first items, tax assets ($573.07 million) dominate tax liabilities ($58.78 million) by a factor of 10. Tax assets are mostly accrued expenses (53.85%). Tax liabilities are all (100.00%) from revenue differences such as installment sales. In the Tax-first items, tax liabilities dominate tax assets by a factor of 23. Tax liabilities are mostly from book-tax depreciation differences.

Table 2: Working Capital Impact of Accounting Standards Update No. 2015–17 across Industries

	PANEL A All Companies				PANEL B* Pre and Post Positive Working Capital Companies		PANEL C* Pre and Post Negative Working Capital Companies	
	Industry-Wide Average Working Capital				Decreasing Working Capital	Increasing Working Capital	Decreasing Working Capital	Increasing Working Capital
(1) Industry	(2) Companies (Company-Years)	(3) Pre-2016	(4) Post-2016	(5) Change in Millions of Dollars	(6) Working Capital % (Company-Years %)	(7) Working Capital % (Company-Years %)	(8) Working Capital % (Company-Years %)	(9) Working Capital % (Company-Years %)
Utilities	100 (437)	-27.76	-37.18	-9.42	-9.64 (35.47)	13.70 (5.95)	-6.86 (28.83)	17.50 (27.00)
Food	151 (667)	241.82	217.19	-24.63	-5.15 (73.46)	32.21 (5.85)	-1.11 (15.59)	36.54 (3.90)
Paper	49 (229)	544.84	517.36	-27.48	-5.56 (91.27)	283.74 (3.06)	0.00 (4.80)	9.30 (0.87)
Chemicals	83 (357)	737.34	717.78	-19.55	-4.14 (76.19)	2.67 (9.24)	-0.57 (13.44)	5.46 (0.84)
Pharmaceuticals and Medicine	631 (2,341)	421.82	394.40	-27.42	-2.21 (80.61)	3.94 (1.71)	-0.24 (16.66)	20.46 (0.73)
Plastics and Rubber Products	36 (158)	96.53	83.02	-13.51	-6.18 (72.78)	2.73 (6.33)	-0.01 (15.82)	31.36 (3.16)
Primary Products	58 (263)	1,003.57	983.16	-20.41	-4.59 (80.99)	4.13 (9.89)	-0.02 (7.22)	1.23 (1.52)
Fabricated Metal Products	62 (288)	353.26	333.91	-19.34	-5.25 (94.44)	1.23 (3.82)	0.00 (1.74)	-
Machinery Manufacturing	174 (736)	709.50	672.02	-37.47	-4.32 (83.97)	4.46 (4.89)	0.00 (8.83)	14.16 (2.17)
Computer and Electronics Products	575 (2,504)	604.09	570.32	-33.76	-3.67 (84.82)	2.44 (3.15)	-0.42 (10.14)	17.92 (1.68)
Electric Equipment, Appliances, and Components	63 (277)	439.69	409.30	-30.39	-3.66 (79.42)	19.74 (4.69)	0.00 (14.44)	4.28 (1.44)
Automotive	81 (359)	1,435.64	1,201.81	-233.83	-7.82 (82.73)	3.13 (1.67)	-0.29 (12.53)	43.46 (1.67)
Aerospace	30 (148)	875.74	982.21	106.47	-5.97 (72.30)	13.22 (15.54)	0.00 (10.81)	10.34 (0.67)
Rail and Ship Building	9 (40)	250.91	218.12	-32.78	-7.24 (67.50)	0.72 (10.00)	-8.42 (12.50)	32.73 (10.00)
All Other Transportation	7 (17)	561.51	526.25	-35.26	-6.66 (64.71)	-	-0.12 (11.76)	4.46 (23.53)
Medical Equipment and Suppliers	120 (482)	235.19	215.29	-19.90	-3.81 (81.54)	7.71 (3.11)	0.00 (14.94)	20.89 (0.41)
Other Miscellaneous Manufacturing	32 (139)	377.18	359.88	-17.30	-5.45 (75.54)	3.44 (3.60)	-0.03 (18.71)	19.84 (2.16)
Wholesale Trade	173 (756)	381.68	393.44	11.76	-3.42 (76.46)	10.63 (10.71)	-10.75 (10.18)	7.18 (2.64)
Retail Trade	224 (1,030)	422.90	403.56	-19.35	-6.34 (78.06)	12.20 (10.87)	-5.41 (7.18)	26.31 (1.84)

Transportation and Warehousing	200 (873)	-335.70	-373.38	-37.69	-8.27 (54.07)	20.93 (4.01)	-4.34 (30.58)	22.41 (9.28)
Publishing-Related Businesses	799 (3,133)	257.01	226.77	-30.24	-6.09 (61.60)	10.18 (3.83)	-1.70 (25.15)	23.12 (8.01)
Finance and Insurance	162 (618)	344.08	315.58	-28.50	-3.99 (74.76)	5.56 (6.47)	-5.01 (13.75)	20.06 (4.37)
Real Estate Rental and Leasing	160 (638)	15.84	6.79	-9.06	-9.84 (53.61)	18.63 (2.66)	-0.08 (34.95)	25.80 (6.27)
Professional, Scientific and Technical Services	253 (1,060)	268.56	239.60	-28.96	-5.25 (70.09)	8.24 (7.26)	-3.11 (16.89)	19.61 (5.09)
Healthcare Services	95 (414)	189.49	164.59	-24.90	-14.36 (65.94)	33.63 (6.04)	-0.25 (16.91)	27.81 (9.66)
Average	**-**	**373.79**	**345.02**	**-28.77**	**-5.03 (73.03)**	**12.79 (4.90)**	**-1.99 (16.79)**	**21.74 (4.45)**
Total	**4,327 (17,964)**							

Source: The sample is selected from Compustat™ active companies for the years 2010–2014. Table 2 shows the percentage of companies in each industry that will have a decrease or an increase in working capital after the adoption of ASU 2015-17. On average, a majority of companies will experience a virtual decrease in working capital.

* Only companies that have positive or negative working capital before and after ASU 2015-17 are considered in Panel B and Panel C because percentage changes involving negative and positive numbers cannot be calculated. This is why the percentages of increasing (4.90% plus 4.45%) and decreasing (73.03% plus 16.79%) companies do not add up to 100%. The lost 0.83% is for companies that will move from positive to negative working capital or vice versa.

Table 3: Expected Material Shifts in Working Capital		
Industry	**Weighted Average Working Capital Increase (Decrease) %***	**Percentage of Industry**
Utilities	16.97	32.65
Aerospace	13.10	16.21
Rail and Ship Building	32.73**	10.00
Wholesale Trade	10.63 (-10.75)**	10.71 (10.18)
Retail Trade	14.24	12.71
Transportation and Warehousing	21.26	13.29
Publishing-Related Businesses	18.93	11.84
Healthcare Services	30.05 (-14.36)	15.70 (65.94)

Notes:
*Weighted by the related percentage of firms in the industry with increasing (decreasing) working capital.
**Unweighted averages.