

Industry specific impact of simplifying deferred taxes

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ABSTRACT

This paper summarizes the asset/liability approach described in Accounting Standard Codification Topic 740 and highlights the flaws in the current accounting standards. The paper proposes an alternative to the asset/liability method, offering improvements in the current standard and avenues for future research. Industry specific empirical evidence for this alternative is provided for the pre- and post-financial crisis periods. The results generally demonstrate decreases in the debt-equity ratio, improving the relevance and reliability of this important benchmark in investment decisions. In February 2013, the Financial Accounting Foundation selected ASC-740 for its post-implementation review process. The review will assess the standard's effectiveness in both the accounting guidance it provides and information disclosed to investors. The adoption of the accounting method proposed in this paper will address the deficiencies inherent in ASC-740 and provide input to the post-implementation review of ASC-740.

Keywords: Deferred taxes, flow-through, debt-to-equity, industry impact, financial crisis impact

INTRODUCTION

Domestic corporations have been accounting for deferred taxes since the Accounting Principles Board (APB) implemented APB Opinion No. 11 (APB, 1967). Deferred taxes occur when items are reported on the tax return in different amounts than they are reported on the financial statements. The current accounting for deferred taxes is described in Financial Accounting Standard (FAS) 109 (FASB, 1992) and requires corporations to account for taxes using the asset/liability approach. FASB's codification efforts have compiled standards for accounting for income taxes in the Accounting Standard Codification (ASC) Topic 740 (ASC-740). This Codification encompasses all tax related FASB standards (FASB, 2009) and the paper refers to ASC-740 when referencing the current standards.

Recent attempts to reexamine deferred taxes were driven by the International Accounting Standards Board (IASB) and FASB initiative to achieve convergence between FASB's ASC-740 with the International Accounting Standard (IAS) 12 (IASB, 1996). However, these efforts have not been successful (Fleming, Gill, and Gillan, 2011). In February 2013, the Financial Accounting Foundation selected ASC-740 for its post-implementation review process. The review will assess the standard's effectiveness in both the accounting guidance it provides and information disclosed to investors.

This paper briefly summarizes the asset/liability approach described in ASC Topic 740 and IAS 12 and highlights the flaws in the current accounting standards. The paper proposes an alternative to the asset/liability method offering improvements in the current standard and avenues for future research. Industry specific empirical evidence for this alternative method is provided for the pre- and post-financial crisis periods. The results generally demonstrate decreases in the debt-equity ratio, improving the relevance and reliability of this important benchmark in investment decisions.

ACCOUNTING STANDARDS CODIFICATION - TOPIC 740

The Codification identifies two principles of income tax accounting: a) to recognize the estimated taxes payable or refundable on tax returns for the current year as a tax liability or asset; and b) to recognize the impact of future tax differentials on assets and liabilities (FASB, 2009, ASC 740-05-5). The first principle relates to taxes due to/receivable from taxing authorities where, until paid/received by the entity, the entity would record a liability/asset. The second principle creates deferred taxes if there is a difference between taxable income versus pretax income where the difference was caused by the timing of recognition of income/revenue or deductions/expenses between tax and financial accounting. These differences are temporary because it is expected that they will reverse in the future. According to ASC 740-10-20, the differences must be due to past actions that will be resolved by either increasing or reducing future taxes.

For example, the accelerated depreciation used for tax allows the company to pay a smaller tax bill in earlier years of the life of a fixed asset and pay a higher bill in later years when the accelerated depreciation wanes, giving rise to a deferred tax liability in earlier years. This tax liability presupposes that the company will earn a profit in later years. If the company incurs operating losses, taxes will not be paid and the deferred tax liability will have no relevance. This flaw in accounting for deferred taxes is one of four criticisms we examine.

FLAWS IN THE CURRENT ASSET/LIABILITY METHOD

Colley, Rue and Volkan (2010) highlight four flaws in the current asset/liability approach described in FAS 109 and discussed in ASC 740. Each of the four criticisms appears below.

Inconsistent Individual and Aggregate Measurements

The unit problem focuses on the level of aggregation that should be used to account for transactions/events as either an individual event or an aggregation of like-kind events (Devine, 1985). Individual versus aggregate categorization of events will lead to a difference in accounting for the financial statement elements. FASB has taken both approaches in creating the deferred tax standards. For example, warranty expense is approached using the aggregate view in that all sales of a warranted item are grouped together, an estimate of warranty claims is made, and the resulting expense/liability is recorded. Individual calculation of each warranty claim is not made (Colley, Rue and Volkan, 2010). In the case of income tax calculations, FASB is inconsistent, advocating aggregate calculations in some areas and individual calculations in others (Colley, Rue, Valencia, and Volkan, 2012).

In ASC 740-10-10, the FASB recognizes that identifying the specific future impact of currently recorded transactions is unrealistic because taxes are based on all items on the tax return which result from current and past years' events. In addition, the attribution of the impact of specific transactions on taxes is arbitrary and requires aggregate estimates (ASC 740-10-10-2; FASB, 2009).

In the area of temporary differences (taxable or deductible) which lead to deferred taxes an individual perspective is taken as the FASB looks at the reported amounts of assets and liabilities that will be recovered and settled, respectively. Based on that assumption, a difference between the tax basis of an asset or a liability and its reported amount in the statement of financial position will result in taxable or deductible amounts in some future year(s) when the reported amounts of assets are recovered and the reported amounts of liabilities are settled (ASC 740-10-25-20; FASB, 2009).

Unreliable Allocations

ASC 740 and the asset/liability method account for unrealized taxes/deductions (deferred taxes) as realizable and allocate them over future periods. However, these unrealized taxes and deductions (deferred taxes) are essentially an element of wealth redistribution created by taxing authorities and should not be allocated over future periods as required by ASC 740. This approach is flawed for several reasons:

1. Deferred taxes do not satisfy the definition of an expense;
2. Taxes are an element of wealth redistribution rather than revenue generation;
3. Unrealized future taxes/deductions do not create liabilities/assets because future taxable income is uncertain; and
4. Accounting theory and standards prohibit the anticipation of future income.

Statement of Financial Accounting Concept No. 6 (Statement 6), paragraph 81 makes it clear that current taxes are expenses; but the statement does not include the deferred portion of

the current tax provision since the latter does not fit the definition of an expense (FASB, 1985). Statement 6 (FASB, 1985) continues in paragraphs 146 – 149 to classify expenses into three categories: 1) matched with revenue (cost of goods sold); 2) period costs (selling expenses); and 3) the cost of assets benefiting future periods using systematic and rational allocation into the future (depreciation). Taxes paid in the period are a period cost. Thus, future taxes (deferred taxes) do not represent a cost of assets that benefit future periods and future allocations are not appropriate.

Flawed Definitions of Assets/Liabilities

Unrealized future taxes/deductions do not create liabilities/assets due to the uncertainty of future taxable income. Concept Statement 6, paragraph 35 defines liabilities as probable future sacrifices of economic benefits arising from present obligations to transfer assets to other entities as a result of past transactions or events and paragraph 25 defines assets as probable future benefits under the control of an entity (FASB, 1985). At first blush, deferred taxes would seem to be a liability/asset. However, the income tax due/refundable in the future is based on future events, not on past events, and thereby violates the definition of a liability/asset as it is debatable as to the obligation of the entity or the ability of the entity to control the deferred tax liability/asset. However, it is possible to characterize the deferred tax/benefit as a contingency. According to ASC 450-10-20 a contingency is an existing condition involving uncertainty as to possible gain (gain contingency) or loss (loss contingency) that will be resolved when one or more future events occur or fail to occur (FASB, 2009). Thus, treating deferred taxes as a contingency rather than an asset/liability makes more sense.

Under ASC 740, a deferred tax asset is reduced by a valuation account if the entity anticipates an inability to utilize the benefits provided by the asset. The standard takes into consideration the likelihood that the deferred asset may not be fully useable to offset future taxable income; however, it does not account for a deferred tax liability the same way. Essentially, the standard acknowledges possible loss contingencies (recognized assets may not be realized), but not gain contingencies (recognized liabilities may not be incurred). This treatment is consistent with the accounting for contingencies and lends support to referring to deferred tax asset/liabilities as contingencies.

Flawed Definitions of Temporary Differences: The Fallacy of Temporary Differences Related To Depreciation

FASB recognizes that some temporary differences may not reverse and exempts such differences from deferred tax recognition in ASC 740-10-25-3 (FASB, 2009). Depreciation is not one of the differences exempt from recognition under the current standard. However, depreciation differences fail to reverse when aggregated in asset groups and should therefore be exempt from recognition as a deferred tax. Aggregate deferred tax liabilities from depreciation stay on the balance sheet until the company reaches its life expectancy and stops purchasing fixed assets. Therefore, the only time aggregate depreciation differences reverse is when the company is no longer active in that business arena. It difficult to define this type of a timing difference as temporary as it is likely that depreciation differences will remain on the books for decades and thereby act more like permanent differences that should avoid accounting treatment all together.

Employing conservative assumptions of asset replacement at constant prices, profitability each year, and no growth after a short startup period, the deferred tax liability grows each year during the startup period and remains constant during the period when worn out assets are replaced. Thus, in years beyond the startup period, income tax expense equals income tax payable - effectively supporting an argument for the use of the flow through method discussed below. The quasi-permanent deferred tax liability that remains on the statement of financial position under the current standard overstates the entity's liabilities. If we relax the assumption of profitability each year, Colley, Rue and Volkan (2010) illustrate the results that occur when income varies and net losses are reported. An operating loss carryback/carryforward, depending on the significance of the loss, will negate the company's ability to take advantage of the depreciation differences and refute accounting for depreciation differences as temporary.

Temporary differences that do not reverse in the foreseeable future should not create deferred taxes as they act more like permanent differences. Treating them as temporary differences creates an added liability on the statement of financial position which does not provide relevant or reliable information for users of the financial statement. To address the flaws in ASC-740, we propose an alternative to the current accounting standards.

ALTERNATIVE TO TOPIC 740

An alternative to the current asset/liability approach is proposed in this paper with the goal of presenting a method that may be adopted for global reporting, namely, the flow through method with a contingent tax asset/liability reported in the notes to financial statements. The flow through method is addressed in numerous articles (e.g., Colley, Rue, and Volkan, 2010; Colley, Rue, Valencia, and Volkan, 2012). Income taxes owed on the tax return are simply reported on the income statement as income tax expense. This method is the simplest and least costly method to apply. In addition, the contingent tax asset/liability is reported for taxes receivable/due that are expected to occur in the forecast horizon.

The flow through method for accounting for income tax expense is simple in that income tax expense equals the amount of income taxes payable to the taxing authorities during the accounting period. Income tax expense is treated as a period cost, is expensed in the period incurred, and not allocated over future periods. Due to the uncertainty of future taxable income, no asset or liability is recorded for the difference between taxable income and pretax income. However, those timing differences that are more likely than not to occur and can be reasonably estimated are reported in the notes as contingencies.

LARGE-SCALE EMPIRICAL ANALYSES

While deferred taxes influence many managerial policies related to debt such as debt refinancing decisions (e.g., Harrington, Smith, and Trippeer, 2012), the debt-to-equity (DTE) ratio was chosen for analysis because it is an important indicator of managerial competence. To see the impact on the DTE for entities reporting deferred tax amounts, thousands of companies are studied in 21 industries over a seven-year period using the deferred tax balances of firms in the COMPUSTAT database (referred to as CT from this point forward). The data set includes companies reporting a deferred tax position over the period 2004-2010. The CT variables TXNDBL [the net accumulated deferred tax liability – a credit balance] and TXNDB [the net accumulated deferred tax asset (liability) – a net debit (credit) balance] are used for the analysis.

Both of these variables represent the temporary asset/liability differentials that result from reporting different amounts for financial reporting and tax purposes. The former is the liability position and the latter is the net asset or liability position. TXNDBL is a positive amount and TXNDB is a positive amount for net asset positions and a negative amount for net liability positions. Observations with negative common stockholders' equity and extreme outlier observations (DTE ratios greater than or equal to 5) are removed. The trends in the deferred tax balances for a full sample consisting of 38,926 firm-year observations are investigated. Additional analyses are conducted on 21 smaller industry specific samples, where industries are defined by the main Standard Industry Classification (SIC) codes.

Methodology

The reported debt-to-equity ratio (DED – where D stands for deferral) calculated via ASC 740 is compared to an adjusted debt-to-equity ratio reflecting the elimination of net accumulated deferred taxes (DEF – where F stands for flow through) to represent the alternative method. For purposes of estimating DEF, TXNDBL is deducted from total debt (numerator) and deducted TXNDB (positive for net asset positions and a negative for net liability) from total equity (denominator). The adjusted ratio (DEF) was based on the idea that no deferred taxes were recorded in the past. This resulted in lower liability and higher or lower equity balances (depending on whether TXNDB was a net asset or liability position). For each year, the differences between DED and DEF were computed; this was done for firms in the overall sample as well as for firms in each of the 21 industry classifications. Finally, the process was repeated for all 21 industries using the pre-recession (2004-2007) and post-recession (2008-2010) periods to determine if the financial crisis had a differential impact on the industries analyzed.

RESULTS

Table 1 (Appendix) presents the 2004-2010 results for the entire sample and for each of the 21 industries. The analyses for the entire sample (the first row of Table 1) indicate that, as expected, the debt-to-equity ratio declines when the alternative method is used (DEF). In addition, results show that annual declines range between a high of 12.5% in 2010 and a low of 10.7% in 2007 and 2008, with an average decline of 11.3% over the 2004-2010 period. Thus, the results show a very stable pattern with small fluctuations from year to year. This pattern matches the predictions and assertions that were made in the discussion above. Since it is logical to assume that individual deferred tax balances eventually reverse, firms appear to be engaging in strategies that prevent the aggregate deferrals from reversing.

The decreases in the DTE ratios were statistically significant (p-value .05) for all industries, for all years, and for each year. While the same pattern generally held during the industry-based analyses, there were exceptions in certain industries. With 37 of the 176 (21%) observations where the differences were not statistically significant, construction, textiles, rubber and plastic, household goods, electronics, motor vehicles, and banking industries led the way. Moreover, seven of the 176 (4%) observations resulted in increases in the DTE ratios when flow through approach was used (negative differences) indicating that the net deferred tax balances were assets for those industries during the years in question. However, none of the negative differences were statistically significant with the largest difference being an increase of 3.5% during 2007 in the construction industry.

The global examination of Table 1(Appendix) shows that the use of the flow through method will lead to a decrease in the DTE ratio. While there are seven increases, the differences are not statistically significant, are very small in magnitude, occur in the years impacted by the financial crisis, and show no industry concentration. The remaining 30 observations that indicate declines in the DTE ratio but are not statistically significant are concentrated in textiles (6), household goods (5), construction and motor vehicles (4 each), rubber/plastics and electronics (3 each), drugs/medical and financial (2 each), and real estate (1), and can be analyzed as follows:

1. Textile industry has been waning for decades and most deferred tax balances are used up.
2. Motor vehicles and construction were significantly impacted by the economic crisis and went through massive restructurings, using up most, if not all, deferred tax balances in the process. These balances declined along with all other assets and liabilities when bankruptcies and other forms of legal procedures caused these entities to use fresh start accounting procedures.
3. Results for household goods, electronics, drug/medical, and rubber/plastics are all connected to the economic crisis. Electronics industry results are leading indicators while the other two track the economic decline.
4. In the financial and real estate sectors, unrealized gains/losses in the fair valuation of securities and other investments explain the decrease of deferred tax balances. As economic activity in these sectors decline, deferred taxes are used up to match against taxes due or create negative tax expense (credits).

To understand if the financial crisis had a differential impact on industry based results, the analyses were extended to two time periods: pre-crisis (2004-2006) and post-crisis (2007-2010) to observe if these results (see Table 2 in Appendix) tracked the results in Table 1(Appendix). Analysis of Table 2 (Appendix) indicates that results generally confirm the observations in Table 1 (Appendix). Because of the use of multi-year periods, all observations show decreases in the DTE ratio. The results that are not statistically significant show the same trends and are concentrated in the same industries as the ones in Table 1 (Appendix).

The evidence presented shows that using the alternative method to account for income taxes significantly decreases the DTE ratio for most firms, improving their financial position. The consistency in differences over the entire sample, in individual industries, and in pre- and post-crisis periods is remarkable.

CONCLUSIONS AND SUGGESTIONS FOR FUTURE RESEARCH

The current reporting requirements for deferred taxes are complex and costly to apply. The ever-increasing net deferred tax liability position for many firms does not appear to be reversing, thereby giving rise to the concern that temporary differences are other than temporary. Thus, a re-examination of the current standard may be justified. This paper examines four flaws in the current standard and proposes an alternative method that results in improvements in the DTE ratio. The proposed alternative is logical if taxation is the act of transferring wealth to a government for permission to engage in business activities in that jurisdiction. Under the proposed alternative, the tax expense is equal to taxes paid and the deferred tax assets and liabilities are eliminated.

At best, deferred taxes represent contingencies since tax policies allow firms continue deferring taxes at the aggregate level indefinitely, making it probable that the temporary difference will not reverse in the foreseeable future. If it is more likely than not that the deferred

taxes will reverse, it is appropriate to report those amounts in the footnotes of the financial statements.

The proposed method may facilitate global convergence of accounting for inter-period tax allocation. With convergence around the corner, now is the time for a change. If the method proposed in this paper does not take root, FASB should consider exempting depreciation as a temporary difference in industries where depreciation acts more like a quasi-permanent difference. Although this would not address all the inherent deficiencies of ASC-740, it would lessen the impact these flaws have on company balance sheets and provide input to the post-implementation review of ASC-740 by the Financial Accounting Foundation.

Future research may examine the behavior of the deferred tax balances over time, normalized by a suitable variable such as total assets. In addition, the persistence of increases in deferred tax balances over time and in different industries may be analyzed. Finally, the impact of eliminating the deferred taxes on the financial ratios in industries with high deferred tax balances versus industries with low deferred tax balances may be computed.

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APPENDIX

Table 1: Difference in the Means of DED and DEF for all years and all industries

	All Years	2004	2005	2006	2007	2008	2009	2010
All industries	.113	.120	.114	.110	.107	.107	.113	.125
Mining	.074	.055	.074	.066	.088	.082	.074	.072
Petroleum and Natural Gas	.185	.210	.174	.189	.181	.200	.166	.175
Construction	.047	.130	.021*	.030*	-.035*	.047*	.060	.089
Food Products	.204	.212	.225	.214	.194	.157	.192	.237
Textiles	.024*	.022*	.047*	.017*	-.005*	.047*	.025*	.012*
Wood & Paper	.258	.345	.291	.299	.214	.250	.226	.153
Printing, Publication & Communication	.200	.170	.198	.207	.212	.184	.215	.233
Chemical and Allied Products	.089	.138	.115	.064	.084	.048	.082	.094
Drugs & Medical Equipment	.014	.004*	.013	.017	.014	.012*	.018	.019
Rubber & Plastic	.060	.124	.107	.093	.038*	.009*	-.030*	.061*
Steel, Metals, Machinery & Equipment	.051	.043	.056	.058	.070	.034	.044	.053
Household Goods	.030	.069	-.012*	.001*	.043*	.017*	.019*	.073*
Electronics	.009	.006*	.003*	.017	.018	.016*	-.003*	-.001*
Motor Vehicles	.065	.048*	.031*	.043*	.104	.041*	.080	.120
Transportation	.267	.341	.298	.243	.242	.246	.256	.243
Utilities	.748	.804	.768	.723	.677	.732	.734	.798
Wholesalers	.086	.080	.085	.071	.126	.052	.076	.114
Retailers	.135	.103	.108	.110	.124	.158	.170	.193
Bank, Insurance & Finance	.017	.013*	.012*	.017	.018	-.003*	.030	.033
Real Estate	.166	.095*	.156	.175	.154	.193	.194	.209
Services	.049	.042	.038	.034	.038	.065	.064	.072

Notes: * indicates the test of difference is not statistically different from zero at the .05 level.

Table 2: Differences in means (DED – DEF): pre- and post-crisis

	All Years	2004-2007 Pre-Crisis	2008-2010 Post-Crisis
All industries	.113	.113	.115
Mining	.074	.072	.076
Petroleum and Natural Gas	.185	.188	.181
Construction	.047	.036*	.065
Food Products	.204	.211	.194
Textiles	.024*	.021*	.029*
Wood & Paper	.258	.288	.210
Printing, Publication & Communication	.200	.196	.209
Chemical and Allied Products	.089	.099	.074
Drugs & Medical Equipment	.014	.012	.016
Rubber & Plastic	.060	.091	.011*
Steel, Metals, Machinery & Equipment	.051	.057	.043
Household Goods	.030	.025	.037*
Electronics	.009	.011	.005*
Motor Vehicles	.065	.056*	.080
Transportation	.267	.280	.249
Utilities	.748	.744	.754
Wholesalers	.087	.091	.080
Retailers	.135	.111	.173
Bank, Insurance & Finance	.017	.015	.020
Real Estate	.166	.147	.198
Services	.049	.038	.067

Notes: * indicates the test of difference is not statistically different from zero at the .05 level