PDBP

Research Proposal

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08/11/10
The Informational Utility of FAS 109: A Longitudinal Analysis

This proposal describes research that will be undertaken in order to assess the utility of the balance sheet approach to accounting for deferred taxes. This standard has been criticized as being conceptually unsound. Furthermore, many argue that the balance sheet entries, especially deferred tax liabilities, distort the balance sheet and provide information that has little relevance for decision makers. This analysis takes the position that, when the limitations inherent in all accounting information are taken into account, FAS 109 is consistent with the conceptual framework. The empirical research that follows is designed to determine whether deferred tax liabilities are related to future cash flows for taxes.
Introduction

Since its implementation in 1992, the utility and practicality of the reporting regime created by SFAS 109: Accounting for Income Taxes has been the subject of continuing debate. Some early research reported that FAS 109’s balance sheet approach provided useful information to investors. (Cheung et al., 1997) However, other analysis has asserted that FAS 109’s approach is not consistent with the FASB’s own conceptual framework, and that the balance sheet approach, especially the recording of deferred tax liabilities, does not provide users with useful information about a company’s financial position. (Colley, Rue and Volkan, 2004) Furthermore, many have complained that, even with all its required disclosures, FAS 109 tells us little about how much taxes a company actually pays. (Hanlon, 2003)

Research Problem

Assessing Informational Utility

FAS 109 has been the subject of a considerable amount of research, and, as was noted above, much of this scholarship has been critical. However, the most important question regarding any accounting standard is whether it provides investors with relevant information about future cash flows. The purpose of this research will be to attempt to answer this question by analyzing the financial statements of the thirty largest publicly traded corporations over the period between 2001 and 2010. The utility of any accounting standard is predicated on the information it provides with respect to future
cash flows.\(^1\) Therefore, it seems logical to test the relevance of the deferred tax assets and liabilities that are recorded as a result of the application of FAS 109 by determining whether assets and liabilities that are accrued in any particular year have an impact on future cash flows or simply accumulate on the balance sheet, serving only to distort a company’s net book value.

The research design follows quite naturally from the conceptual framework’s definition of assets and liabilities. Assets are accounts which denote “future economic benefits” and liabilities are “probable future sacrifices of economic benefits.” (FASB, 1985) Consequently, the presence of deferred tax assets and liabilities should be followed, within some reasonable time frame, by either a reduction in taxes in the case of tax assets, or an increase in taxes in the case of deferred liabilities. In the case of deferred tax assets, the amount reported on the balance sheet is reduced by a valuation allowance, which is determined by the amount of the asset that is not likely to be realized. On the other hand, deferred tax liabilities cannot be reduced except by reversal. Consequently, the focus of this research is primarily on the predictive value of deferred tax liabilities.

**FAS 109 and the Conceptual Framework**

Some of the literature dealing with the practical application of FAS 109 will be discussed below. However, before looking at the actual application of FAS 109, questions regarding the conceptual soundness of the tax reporting framework need to be addressed. Colley et al. (2006) have argued that income taxes should not be considered an expense all, because they are in fact distributions of income. Moreover they have argued that deferred tax liabilities cannot truly be considered liabilities because the

\(^1\) Specifically, FASB Concepts Statement No. 1, *The Objectives of Financial Reporting by Business Enterprises*, establishes that the goal of financial reporting is “to help investors, creditors, and others assess the amounts, timing, and uncertainty of prospective net cash inflows to the enterprise.” (FASB, 1978)
obligation to pay taxes in the future is dependent on the generation of taxable income in future accounting periods. Furthermore, the recording of deferred tax assets creates a contradiction with the principle of conservatism, because these are tax benefits that depend on the realization of taxable income in the future.

The contention that income taxes should be seen as distributions of income rather than expenses is supported by the observation that, when it comes to the accurate reporting of income, both the tax authorities and the shareholders can be considered stakeholders. (Desai, 2005) However, barring a major paradigm shift which discards the entity concept, it doesn’t seem possible to consider income tax payments as anything other than expenses. The corporations that incur income tax liabilities are specific economic units whose cash outflows involve expenses, investments in operational capacity, and transactions with owners. Although owners obviously take a keen interest in how much taxes the entity is paying, these payments can hardly be seen as transactions with owners. Moreover, characterizing taxes as distributions takes an unnecessarily crabbed view if the business entity’s place in civil society. Like other taxpayers, businesses benefit from the results of the government operations that they fund.

Similarly, although the balance sheet recognition of deferred tax assets and liabilities appears to go against the grain of financial accounting’s conscious commitment to conservatism, recording the prospective benefits and costs resulting from temporary differences between tax and financial accounting rules is consistent with basic accounting postulates. Notwithstanding the aforementioned commitment to conservatism, financial

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2 It should be noted that, when it comes to conservatism, FAS 109 does require that a provision be made for the possibility that the tax benefits of deferred tax assets will not be realized. In the event that it is considered more likely than not that all or part of a tax asset will not be realized, the recorded amount is adjusted by a valuation allowance,
reporting is predicated on a going concern assumption. Assets and liabilities are recorded on the balance sheet despite the fact that the future benefits and costs of these assets and liabilities cannot be predicted or measured with certainty. However, Concepts Statement 6's definition of assets and liabilities, makes clear that "the existence or amount...of most assets and many liabilities can be probable but not certain." (FASB, 1985) This is inevitable, because, as SFAC 6 points out, the task of financial accounting involves recording the results of economic transactions in an environment of "pervasive" uncertainty.³

There will probably be continuing disagreement on whether SFAS 109 is on all fours with the conceptual framework. Nevertheless, ultimately any assessment of the utility of SFAS 109's reporting requirements depends on their ability to predict future cash flows. In particular, this research will focus on the relationship between deferred tax assets and liabilities and future cash flows for the payment of income taxes.

**The Case for a Longitudinal Approach**

Ultimately, the utility of any accounting standard is predicated on its ability to predict future cash flows. Consequently, this study is designed to focus on the relationship between deferred tax assets and liabilities and future cash flows for taxes. The balance sheet approach of FAS 109 necessarily assumes that the temporary differences that give rise to these accounting entries will eventually reverse. However, they do not reverse according to any fixed schedule. Therefore, a cross sectional approach is unlikely to yield a definitive answer to the question of whether they reverse.

³ "Uncertainty about economic and business activities and results is pervasive, and it often clouds whether a particular item qualifies as an asset or a liability of a particular entity at the time the definitions are applied." (FASB, 1985)
Although it is only possible to apply the longitudinal approach to a relatively small number of companies, a close analysis of the relationship between balance sheet entries for deferred taxes and future cash flows for tax payments among America’s largest companies should provide some useful insights into this relationship.

The Literature

The accounting literature on FAS 109 and its implementation has covered a range of issues. With its implementation in 1992, much of the research was directed toward establishing the utility of the additional information provided by FAS 109’s balance sheet disclosures. Other research has focused on the divergence between the income reported on companies’ financial statements and the taxable income reported on tax returns, with particular emphasis on what FAS 109 disclosures can tell us about the taxable income actually reported on a corporation’s tax return. More recent research has questioned whether deferred tax liabilities, which often show a tendency to continually increase, should even be recorded on the balance sheet. The validity of the standard’s process for recording deferred liabilities has also been criticized because these are the only long term liabilities that are not recorded at a discounted present value; however, other research has questioned the feasibility of discounting. In addition, comparative research has focused on differences between U.S. practices and generally accepted accounting principles in other countries. Finally, some articles have appeared in specialized journals making use of the data compiled from Schedule M-3 by the IRS’s Statistics of Income Division.
Implementing FAS 109

The complexity and cost involved in implementing FAS 109 led to concerns about whether the balance sheet approach was consistent with financial accounting's overarching cost-benefit constraint. Is the information produced by FAS 109's reporting regime sufficiently useful to investors and other users? This was the focus of much of the research that followed FAS 109's implementation. In a study of the "incremental-value relevance" of FAS 109's additional disclosures, Ayers reported that the cumulative effect of adopting the new balance requirements for reporting deferred liabilities was negatively related to market value for firms adopting FAS 109 in 1992 and 1993. (Ayers, 1998) Moreover, he also found that there was also a significant negative relationship between market value and the required adjustment to deferred tax liabilities due to newly enacted tax rates.5

Assessing the informational utility of accounting standards by measuring their effects on stock prices has probably been the most frequent approach. However, other researchers have observed that this approach is predicated on the assumption that securities markets efficiently incorporate all the relevant information into stock prices.6

In a more direct approach to measuring the relevance of tax deferrals to cash flows,

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4 A finding of market relevance for FAS 109's deferrals would be significant because of the widespread perception that deferred tax liabilities were being disregarded by securities analysts. For example, in an article about FAS 109's never-implemented predecessor, FAS 96, Chaney and Jeter commented that "many analysts implicitly assume that all deferred taxes are recurring and therefore unlikely to be paid. Therefore they routinely add deferred tax expense back to net income and treat the balance sheet account as equity.” (Chaney and Jeter, 1989) p. 8.

5 Unlike its predecessor, APB 11, FAS 109 requires that deferred tax liabilities be adjusted for enacted changes in tax rates. As it happened, during the period of implementation of FAS 109, Congress passed the Revenue Reconciliation Act of 1993, which raised the top marginal rate for the corporate income tax.

6 "A major limitation of the studies on the association between deferred taxes and security prices is that interpretation of the findings depends on whether one accepts the notion of market efficiency...” (Cheung, et al, 1997), p. 3.
Cheung, et al, (1997) found that both deferred tax liabilities and deferred tax expenses helped in predicting both future tax payments and future operating cash flows.

**Conceptual Soundness**

Other research has taken issue with FAS 109 on the grounds that its treatment of income tax expenses and the accrued long term liability are not consistent with the FASB’s conceptual framework, and result in distorted corporate balance sheets. Colley, Rue and Volkan (2006) argue that, since income tax expenses are not related to the production of income, they should be characterized as redistributions rather than as expenses.\(^7\) Furthermore, they argue that FAS 109’s treatment of deferred taxes as liabilities is not consistent with the definition of liabilities in the conceptual framework. Specifically, deferred tax liabilities are not present obligations to transfer assets to others because the obligation is contingent on future events, specifically the realization of taxable income. Since their research establishes that deferred tax liabilities are much more likely to remain stable or increase than they are to reverse, they advocate the use of a “flow-through method,” which would include these liabilities in retained earnings, except for those deferrals that are highly likely to reverse. (Colley, et al., p. 6)

Another frequent concern has been the proper measurement of deferred tax liabilities. Unlike deferred tax assets, which are adjusted by a valuation allowance, deferred tax liabilities are reported on the balance sheet at their full amount. As Colley et. al., point out, this makes them an exception to the general rule that non current liabilities should be reported at their discounted present value. (Colley, et al., p. 4)

However, as Guenther and Sansing have demonstrated, the present value of a deferred tax

\(^7\) It is interesting that this interpretation would put tax authorities in roughly the same position as shareholders, making their perspective similar to that of Desai.
liability is not necessarily equal to the present value of the deferred tax expense. (Guenther and Sansing, 2004)

The Book-Tax Gap and Transparency Concerns

Another criticism of FAS 109 has been that its disclosures seem unusually opaque when it comes to determining how much taxes companies actually pay. In fact, at least one critique has suggested that the divergence between tax and financial reporting helped bring about some of the financial scandals of the late 1990s. According to this line of thought, the dual system of book and financial reporting allowed companies to report inflated income to shareholders and analysts, while their tax returns depicted a more accurate picture of more modest earnings, and in some cases even loses. The validity and relevance of taxable income as a measure of earnings quality is demonstrated in the research of Lev and Nissim. They find that the ratio of tax to book income is a strong predictor of both future earnings and equity values. (Lev and Nissim, 2004)

Comparative Perspectives

For those who question the soundness of FAS 109's approach to recognizing deferred tax assets and liabilities, the experience of countries that have applied a more nuanced approach to the recognition of deferred tax assets and liabilities may provide some interesting food for thought. Until recently, British accounting practice did not require the recognition of all deferred tax assets and liabilities. U.K. GAAP only

required the recognition of temporary differences that were likely to reverse in the

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8 In an article that includes case studies of the scandals at Enron, Tyco and Xerox, Desai argues that the keeping of two set of books for tax and financial statement purposes has contributed to what he calls "the degradation of reported corporate profits."

9 Obviously, since corporate tax returns are not available, determining the numerator in any tax to book income ratio is a challenge. Lev and Nissim used the portion of tax expense that was reported as current, grossed up by the top federal statutory rate to measure taxable income. The best method of deriving taxable income from financial statements is a subject of continuing discussion. Others (e.g., Hanlon, 2003) have suggested uses cash paid for taxes from the statement of cash flows.
foreseeable future. Gorden and Joos (2004) have observed that this flexibility with regard to recognition, especially with respect to liabilities, has resulted in opportunistic financial reporting. In their view, the common British practice of making debt-equity ratios part of debt covenants gave British managers a strong motivation to avoid recognition of deferred tax liabilities, especially if the firm was already highly leveraged. (Gorden and Joos, 2004, p. 117)

**Schedule M-3**

Since 2004, corporations with over $10 million in assets have been required to include a new schedule, Schedule M-3, with their tax returns. The introduction of this schedule was a result of the Department of the Treasury’s effort to “focus in earnest” on the book-tax gap, whose increasing size in the 1990s had attracted the attention of policy making officials in that department. (Boynton and Wilson, 2006) Schedule M-3 replaced the ten lines of Schedule M-1 with a three page, 78 line, schedule that was designed to shed greater light on the sources of the difference between income reported on a corporation’s financial statement and the taxable income reported on the return. Some research based on summary data from these forms has appeared. One noteworthy observation is that, contrary to commonly perceived situation in the 1990s, large gaps between book and tax income are not inevitable. In fact, in 2005 the excess of book over tax income amounted to barely more than 1% of the total of taxable income reported. (Boynton, et al., 2006)

Currently, the aggregate data reported on Schedule M-3 for the years 2004 – 2007 is available from the IRS’s Statistics of Income Division. These reports contain an overwhelming amount of data. However, a preliminary analysis of the data for 2007
may provide some insight into the limitations of FAS 109 as a tool for analysis of the book-tax gap. Parts II and III of the schedule are designed to reconcile income and expense items from the financial statements to the tax return, taking into account both temporary and permanent differences. With respect to both income and expense items, permanent differences were at least five times greater than temporary differences.\textsuperscript{10} Since the accruals mandated by FAS 109 only deal with temporary differences, a large part of the book-tax gap is outside its scope.

Hence, the initial releases of M-3 data tend to confirm that FAS 109 disclosures will not tell us much about the sources of the book-tax gap. Nevertheless, the aggregated data presented in the Internal Revenue Service’s M-3 reports can give us some insights into the extent and direction of temporary differences between book and tax income. The mere fact that temporary differences are a small part of the book tax gap suggests that these differences are not deferred indefinitely. Moreover, a close analysis of the aggregate data shows that, contrary to the received wisdom, differences between tax and book depreciation, long thought to be a source of indefinite tax deferral, are a relatively insignificant source differences, at least when one looks at the aggregated results of the 49,179 M-3s that were filed for the 2007 tax year.\textsuperscript{11}

**Research Design and Hypotheses**

\textsuperscript{10} These data are available in excels spreadsheet format at the IRS website, www.irs.gov/taxstats/bustaxstats.

\textsuperscript{11} The cumulative data reported on Line 31 of Part III, which adjusts book to tax depreciation, shows that in aggregate, tax depreciation was only 3.6% higher than book depreciation. In their analysis of the 2005 data, Boynton et al. (2008) identify Lines 26-32, which include adjustments for amortization, environmental remediation costs, depletion and bad debt expense, as well as depreciation, as one of the major contributors to book tax differences. However, for tax deferral purposes, it should be noted that the difference between the aggregates of these categories actually shows that deductions per the financial statements were greater than those on the tax return. Furthermore, most of the difference is due to permanent rather than temporary differences.
Now that FAS 109 has been in effect for over 15 years, it seems appropriate to revisit the question of its informational utility. This question seems especially pressing with respect to long term deferred liabilities. As was noted above, Colley et al's conceptual critique of FAS 109 was accompanied by research that showed that the ratio of deferred tax liabilities to total assets increased more or less continuously in the mining and real estate industries in the decade from 1995-2004. The purpose of this research is to address three questions that are central to FAS 109's viability as an accounting standard.

1. Is there a long term trend for deferred tax liabilities to increase, not only in absolute amount, but also as a percentage of assets?

2. How much distortion of net book value results from the presence of deferred tax liabilities on the balance sheet?

3. Notwithstanding their effect on net book value, do tax deferred tax liabilities help in predicting future cash flows?

Hypotheses

1. Over time there will not be an identifiable trend for deferred tax liabilities, measured as a percentage of total assets, to increase. An increase in the scale of operations may result in an upward drift in the absolute amount of these liabilities, but such a trend should not be evident when they are measured as a percentage of assets.

2. In aggregate, the presence of deferred liabilities will not result in a significant distortion of net book values. Furthermore, for any particular company, such distortion will be temporary rather than sustained.
3. Times series analysis will show that deferred tax liabilities will help predict future cash flows for payment of taxes.

**Research Design and Data Collection**

The first two questions are empirical ones which can be answered through the collection of data. Data will be collected from 10-Ks of the 30 top fortune 500 companies from 2001 to 2010. For each company, deferred tax liabilities as a percentage of total assets will be computed for each year. In addition, the net book value will be recomputed for each company with the deferred tax assets reclassified as part of shareholders’ equity.

The third hypothesis will be tested by fitting a time series regression equation to the data for each company, and computing correlation coefficients for the data as a whole on a yearly basis. The dependent variable is the amount of cash payments for income taxes in each year. This is required to be disclosed in the statement of cash flows, although many companies report it in the notes to the financial statements instead. Hanlon (2003) has argued persuasively that this is the best available measure of how much taxes corporations actually pay. Moreover, since the utility of any accounting principle is based on its ability to predict future cash flows, the use of this measure seems conceptually sound. The correlation coefficient is simply $\rho_{xy}$, where $x$ is the change in the deferred tax liability from the preceding year and $y$ is the change in cash flows for taxes. The correlation between $x$ and $y$ should be negative and significant. The time series regression equation is as follows:

$$\Delta CF_{t} = \alpha + \beta_{1}DFT_{t-1} + \beta_{2}DFT_{t-2} + \epsilon_{t}$$
In the equation CFT is cash payments for taxes and DFT_{t-1} is the deferred tax liability in the preceding period, and t-2 is the second preceding period. Clearly, if deferred taxes predict future cash flows for taxes, \( \beta_1 \) and \( \beta_2 \) should be positive and significant. However, as was mentioned at the outset, there is no fixed time frame for the reversal of deferred tax positions, so a number of these distributed finite lag models may be fitted to each set of time series data.

The debate over the validity and practicality of FAS 109 will probably continue. However, this project is designed to address some of the most important accounting issues involved in the application of this standard. If a relationship between the deferrals required by FAS 109 and future cash flows for taxes can be established, it will help establish the utility of what is probably the most controversial aspect of this standard.

REFERENCES


