THE ECONOMIC CONSEQUENCES OF SFAS NO. 158

by

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Abstract

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This study examines the economic consequences of Statement of Financial Accounting Standards No. 158, Employers' Accounting for Defined Benefit Pension and Other Postretirement Plans. SFAS No. 158 requires the funded status of postretirement benefit plans be reported on the face of the balance sheet. The study adds to the debate regarding the equivalence of recognition versus disclosure and to the ongoing discussion of post retirement benefit reporting. The study finds that managers responded to the requirement to recognize previously disclosed net pension and postretirement benefit obligations by first lobbying against the standard's implementation and then by attempting to mitigate its negative impact by increasing the discount rate in subsequent periods. Firms with larger SFAS No. 158 balance sheet adjustments and more volatile pension assets and obligations were more likely to lobby and increase discount rates. The study further documents a negative stock price reaction around the release of the SFAS No. 158 exposure draft. The study finds that the market reaction is positively related to the SFAS No. 158 adjustment and it is driven by the OPEB adjustment rather than the pension adjustment. The findings presented in the study have important implications for the recognition versus disclosure debate, because they document a significant market reaction to the relocation of already disclosed information from the financial statements footnotes to the balance sheet.

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SECTION 1. INTRODUCTION

SFAS No. 158, Employers' Accounting for Defined Benefit Pension and Other Postretirement Plans, moves disclosures of defined benefit (DB) pension plans and other postretirement (primarily health and life insurance) benefit (OPEB) plans from the footnotes to the balance sheet. The measurement of pension and postretirement benefit obligations remains unaltered. However, firms must recognize the funded status of these postretirement benefit[1] plans on the balance sheet.

This study examines the effects of this reporting change from two perspectives. First, the study examines management action in response to the change. The study examines management lobbying behavior following the release of the SFAS No. 158 exposure draft. Additionally, insofar as management has some discretion in controlling the potential negative effects of the pronouncement, the study examines whether management 'optimized' the choice of the discount rate subsequent to the issuance of SFAS No. 158.

Second, the study examines the market valuation effect of the rule change by examining the market reaction to the events leading to the issuance of SFAS No. 158. The relation between the market reaction and the balance sheet effect of the rule change is also examined.

A sample of over 300 S&P 500 firms that had postretirement benefit plans was examined. For the majority of firms (over 90%), recognizing the funded status on the balance sheet increased (decreased) reported liabilities (equity) and weakened their balance sheets.

The study documents that the firms that lobbied against the plan had large, underfunded plans and that the decision to lobby was related to the magnitude of the SFAS

[1] The term postretirement benefit plans encompasses both defined benefit pension plans as well as other postretirement (health and life insurance) plans.

No. 158 balance sheet adjustment. Similarly, the study documents that firms chose higher discount rates subsequent to SFAS No. 158 and that choice was also related to the SFAS No. 158 balance sheet adjustment. That is, the more negative the adjustment, the higher the chosen discount rate. This is consistent with managers attempting to mitigate the negative impact of the new pronouncement.

With respect to the market reaction, the results indicate, on average, a significant negative market reaction at the time the SFAS No. 158 Exposure Draft was issued. The market reaction is shown to be related to the SFAS No. 158 balance sheet adjustment, the more negative the adjustment, the more negative the market reaction. However, these results are found to be driven by the required balance sheet adjustment for OPEB plans and not by the pension plan adjustment.

SECTION 2. BACKGROUND AND LITERATURE REVIEW

Pension Accounting

Prior to SFAS No. 158, accounting and disclosure for postretirement plans was governed by SFAS No.s 87, 106 and 132R. Under the provisions of these pronouncements, firms were allowed to smooth postretirement related costs (credits) caused by (i) changes in actuarial assumptions (ii) plan amendments and (iii) "abnormal" asset returns. These items were reported in the footnotes, but were amortized to income and the balance sheet over time.[2]

SFAS No. 158 Employers' Accounting for Defined Benefit Pension and Other Postretirement Plans moves disclosures related to defined benefit pension plans and other postretirement (primarily health and life insurance) benefit (OPEB) plans from the footnotes to the balance sheet. The statement requires firms to recognize the funded status of these postretirement benefit plans on the balance sheet. Following SFAS No. 158, firms are no longer allowed to smooth these costs for balance sheet purposes but are required to report them through charges to the appropriate asset/liability account and Accumulated Other Comprehensive Income (AOCI). By making the adjustments to AOCI, the Financial Accounting Standards Board (FASB) has, for the time being, permitted these costs to still be smoothed on the income statement. [3]

[2] An exception to the 'smoothing' practice was called for if the resultant balance sheet liability proved to be lower than a plan's (un)funded status as measured using the Accumulated Benefit Obligation (ABO). Those firms were required to post a minimum-liability adjustment (MLA) to bring the balance sheet liability up to the level of the unfunded status as measured with the ABO.

[3] The determination of the future treatment on the income statement is now under consideration as part of the FASB's agenda.

Disclosure versus Recognition - Overview

An examination of management and market reactions to the pronouncements leading to the issuance of SFAS No. 158 provides additional insight into the controversy over the equivalence of disclosure and recognition. If disclosure is a substitute for recognition, there should be no effects resulting from SFAS No. 158. If, however, disclosure is not a substitute for recognition, the requirement to report the funded status on the balance sheet should affect management choice as well as market valuation.

The recognition versus disclosure controversy typically follows two (not unrelated) trains of thought. The first deals with the quality of the numbers and whether the market weighs disclosed numbers in the same way that it does those that are recognized on the financial statements.

The second, based on contracting theory, notes that even if there was no difference between the quality of and/or the market's perception of recognized versus disclosed numbers, secondary effects resulting from recognition can play a significant role. Balance sheet (income statement) recognition of an item can result in creditors being more reluctant to make loans to companies with weaker balance sheets (lower income). Additionally, financial statement recognition could also negatively impact the level and variability of a firm's financial ratios, increasing the probability of debt covenant violations. These secondary effects can lead to (1) an attempt on the part of managers to mitigate these adverse effects and (2) negative market reaction as a result of these adverse effects.

Disclosure versus Recognition Literature Review

Research into the disclosure versus recognition debate has examined the question from both the general perspective as well with respect to specific issues. Bernard and Schipper

(1994) posit that in general recognized items are viewed as more reliable than disclosed items, by virtue of their recognition alone. Under the FASB's conceptual framework, to be recognized, an item must be measurable and reliable, criteria that need not be met for disclosed items. Thus, investors perceive recognized items as inherently more reliable than disclosed items.

Consistent with the above, Libby, Nelson, and Hunton (2006) find that auditors are more likely to allow firms greater leeway in reporting disclosed financial information versus information that is recognized. Therefore, they also conclude that investors rely on recognized information more than on disclosed information.

On the other hand Holthausen and Watts (2001) argue that recognition may in fact lead to less reliability. They argue that managers have more incentive to manipulate items that are recognized, relative to disclosed items. Thus, moving an item from the footnotes on to the financial statements may reduce its reliability.

Considering a specific accounting issue, Aboody (1996) examined the question of disclosure versus recognition in the oil and gas industry. Certain capitalized assets are required to be written down when their carrying value is greater than their anticipated future cash flows. For successful effort (SE) firms, assets are compared to the undiscounted future cash flows. For full cost (FC) firms, assets are compared to the discounted future cash flows. When the carrying value of assets fall between the discounted and undiscounted future cash flows, FC firms must write them down, while SE firms need only disclose the information in a footnote. Aboody (1996) found that the recognized write down of FC firms was given greater weight by the markets than the footnote disclosure of the SE firms.

Ahmed, Kilic, and Lobo (2006) examine the question of recognition versus disclosure in the setting of derivatives before and after SFAS No. 133. They find that recognized derivatives are valued by the market, while disclosed derivatives are not. They posit that investors do not pay as much attention to disclosed amounts as they do to recognized amounts, and conclude that disclosure is not a substitute for recognition.

More pertinent to the subject matter of this study, Davis-Friday, Liu, and Mittelstaedt (2004), examine the question of recognition versus disclosure in an OPEB setting. They find that the market treats disclosed information concerning OPEB obligations as less reliable than recognized information concerning OPEBs. The authors thus conclude that disclosure is not equivalent to recognition.

Espahbodi, Espahbodi, Razaee, and Tehranian (2002) looked at the market reaction following the release of the exposure draft relating to the reporting of stock-based compensation. The draft proposed requiring recognition of stock-based compensation costs. Their study documents significant abnormal returns at the time of the exposure draft release, as well as at the time of its subsequent reversal. Given that the information related to the stock-based compensation was to be disclosed in any case, the authors conclude that market participants value disclosure and recognition differently.

This same issue was examined earlier by Dechow, Hutton, and Sloan (1996) who did not find any price reaction to the stock-based compensation exposure draft pronouncements. Their focus, however, was more from the perspective of management's lobbying efforts as they attempted to identify the firm characteristics that would lead to firms lobbying against the new regulation.

In a similar vein, Marquardt and Wiedman (2007), examine management actions as well as market reaction following changes in the reporting requirements for contingent convertible securities. They find that managers restructured or redeemed the securities to mitigate the effect of the FASB requirement to include these securities in the calculation of diluted earnings per share. Additionally, they find negative market reaction around dates associated with the accounting rule change. Interestingly, they find these results even though the rule change they examined is only related to the calculation of diluted EPS with no (direct) income statement or balance sheet effect.

Valuation of Pension Assets/Liabilities and Cost Components

The second part of this study looks at the market reaction to SFAS No. 158. Whether or not this pronouncement should have any market valuation effects depends on two issues. First, does the market value pension assets and liabilities? Second, and more important, is the general issue outlined above related to recognition versus disclosure. Does the market value footnote disclosures in a similar fashion to data recognized in the financial statements?

In general, the answer to the first question is affirmative. The market does value pension assets and liabilities. Early research into this question was confined to the ABO, the liability measure used prior to the issuance of SFAS No. 87. Feldstein and Morck (1983), Daley (1984) and Landsman (1986) found that the market does value the pension liability. These results were confirmed using SFAS No. 87 disclosures by Barth (1991), Barth, Beaver, and Landsman (1992) and Gopalakrishnan and Sugrue (1993). Although Barth (1991) found that the projected benefit obligation (PBO) measure was viewed as being noisy relative to the ABO.

More recently Li, Merton, and Brody (2006) examined whether the systematic risk of firms as measured by beta reflected the risk of their pension plans. They found that their results are "...consistent with the hypothesis that equity risk does reflect the risk of the firm's pension plans despite arcane accounting rules for pensions". These findings are consistent with the argument that markets do not differentiate between disclosed and recognized pension data.

Others (e.g., Coronado and Sharpe (2003), Gold (2005), and Coronado, Mitchell, Sharpe, and Nesbitt (2008)), however, have taken the position that the market does not value the off-balance sheet pension debt in an appropriate manner and that deficiency is, in part, related to the fact that the pension information is not recognized on the balance sheet. This point of course, is related to the overall disclosure versus recognition issue discussed previously and I return to it below.

SECTION 3. OBJECTIVES OF STUDY

The literature review indicates that a change from disclosure to recognition can affect management behavior as well as lead to stock market reactions. This study examines the effects of the new SFAS No. 158 reporting requirement from these two perspectives.

Management Behavior Effects

There are several actions managers can take in response to the SFAS No. 158 new reporting requirement. First, in an effort to delay or prevent the rule change, managers can lobby and submit comment letters to the FASB.

Second, managers can use their discretion in reporting pension obligations to mitigate the adverse effect of the new requirement. For example, managers can increase the discount rate assumption used to calculate the reported obligation. Prior literature has found that managers make discount rate assumptions in an effort to maximize the funded status of the plan.[4] These studies were all conducted over time periods when the funded status was disclosed in the footnotes to the financial statements. Post-SFAS No. 158, when the funded status is reported on the balance sheet, one would expect managers to be even more motivated to choose discount rates that positively impact the funded status. Finally, at the extreme, managers can choose to terminate or curtail plans in response to the new reporting requirement.

This study examines the first two actions: submitting comment letters and changing discount rate assumptions. The decision to freeze the plans has been examined by Beaudoin, Chandar, and Werner (2007) and Munnell and Soto (2007) who found that managers' decision to freeze or terminate pension plans was related to accounting reporting changes.

[4] Higher discount rates lead to lower PBOs, which in turn lead to a higher funded status.

Market Reaction

One might argue that in an efficient market there should not be any reaction to SFAS No. 158 given that the information was previously disclosed. However, empirical evidence discussed earlier suggests that disclosure, in general, is not necessarily equivalent to balance sheet recognition. The studies above posit that recognized data are either more or less reliable than disclosed data. Therefore, in either case there should be some market reaction (positive or negative) to the new reporting requirements.

Furthermore, some argue that for postretirement benefit plans in particular, disclosure is not equivalent to balance sheet recognition. It is precisely that belief that led the FASB to issue SFAS No. 158.[5] It is useful to test whether the FASB's conjecture is correct that the recognition of the funded status is not equivalent to its simple disclosure.

More importantly, however, contracting theory argues that even if there is no difference between recognition and disclosure, it does not necessarily mean that there will be no market reaction to the disclosure, since secondary effects may result from reporting the funded status on the balance sheet.[6] Creditors may be more reluctant to make loans to companies with weaker and more volatile balance sheets. Furthermore, recognition of the pension plan on the balance sheet impacts the level and variability of a firm's financial ratios,

[5] In SFAS No. 158 under the heading *Reasons for issuing the statement* the FASB states:

> "Prior standards relegated information about the overfunded or underfunded status of a plan to the notes to financial statements. That information was in the form of a reconciliation of the overfunded or underfunded status to amounts recognized in an employer's statement of financial position. The Board was told that presenting such information only in the notes made it more difficult for users of financial statements to assess an employer's financial position and ability to satisfy postretirement benefit obligations."

[6] Taking this approach does not contradict the findings mentioned earlier (e.g. Li et al. (2006)) that the market prices disclosed (and not recognized) items correctly. When they are only disclosed, there are no contracting effects; upon recognition the contracting effects change the firm's outlook and can lead to an adverse market reaction.

increasing the probability of debt covenant violations.[7] These adverse credit market effects, as well as their potential to limit a firm's growth possibilities, should result in a negative market reaction, and efficient markets should react to these effects. The results of Espahbodi et al. (2002) and Marquardt and Wiedman (2007) discussed earlier are consistent with this argument. This study, therefore, also examines stock market reaction to the issuance of pronouncements leading to the issuance of SFAS No. 158.

The remainder of the study is organized as follows. The sample, database, definition of key variables and descriptive statistics are presented in Section 4. Section 5 examines management's actions in response to the new reporting requirements. The stock market's reaction is examined in Section 6. Section 7 provides ideas for future research and Section 8 summarizes the findings.

[7] These issues appeared in many of the comment letters that the FASB received in response to the SFAS No. 158 Discussion Memorandum. The Xerox Corporation (Letter of Comment 225 – June 6, 2006 (see Appendix 2)), for example, noted that

> "Companies may be affected adversely by potential negative ramifications relating to their debt covenants and other financial agreements. As a result of potential negative impacts to equity, some companies may experience higher costs of capital and/or restrict their ability to borrow for working capital needs."

SECTION 4. SAMPLE, DATA DEFINITIONS, AND DESCRIPTIVE STATISTICS

This study examines management response and the market reaction to the SFAS No. 158 requirement to recognize the funded status of postretirement plans on the balance sheet. This section discusses the data collection procedures, defines key variables used throughout the study, and presents descriptive statistics. Variables that are specific to certain aspects of the study are defined in their appropriate section.

Sample – The S&P 500

The sample is restricted to S&P 500 firms because these firms tend to have the largest postretirement plans. S&P 500 firms represent over 90% of the total sum of the PBO for all companies in the Compustat universe from 2000 to 2006. Thus, these firms with the largest plans should provide the most powerful tests of any reaction to or effect of the recognition requirement.

There are three dates of interest in the development of SFAS No. 158. The FASB first announced they were embarking on an overhaul of pension accounting on November 10, 2005. The SFAS No. 158 exposure draft was released on March 31, 2006, and the final pronouncement was issued September 30, 2006. For a firm to included in the sample, it had to be part of the S&P 500 throughout this time period. Firms that were added to or dropped from the S&P 500 at any time during the development of SFAS No. 158, were not included in the sample. The reasoning behind this is that being added to or dropped from the S&P 500 index is a significant confounding event, potentially skewing the analysis. As Table 1 indicates, 475 firms were part of the S&P 500 throughout the development of SFAS No. 158. Of these 475 S&P 500 firms, 383 had postretirement plans.[8]

[8] The 92 S&P 500 firms that did not have any postretirement obligations serve as a "control" group in the market reaction portion (Section 6) of the study.

The analyses performed in this study required the compilation of data from numerous sources. Returns data were collected from CRSP, financial statement data were collected from the Compustat annual dataset, and pension related variables were collected from the Compustat annual pension dataset. The Compustat pension dataset is a new dataset that compiles pension variables not included in the Compustat annual dataset. Of the 383 S&P 500 firms that had postretirement plans, 337 had the necessary data from CRSP to perform the market study. For the management reaction analysis as well as the analysis of the interaction of the market reaction to firm characteristics, data are required from both the Compustat annual and Compustat pension databases. An additional 99 firms were dropped because they did not have the required data.

Variables – Data Definitions

The discussion below describes the calculation of the funded status and the balance sheet adjustment resulting from SFAS No. 158. Appendix 1 provides information regarding the Compustat variables needed to make the necessary calculations.

Funded Status

The funded status (FS) of the plan is defined as the plan assets minus the obligation. For defined benefit pension plans, it is the pension plan assets (PPA) less the projected benefit obligation (PBO); PENFS = (PPA – PBO). For postretirement plans, the funded status is calculated as the plan assets (OPEBPA) less the accumulated post retirement obligation (APBO); i.e. OPEBFS = (OPEBPA – APBO). The combined overall funded status is calculated as the sum of the pension plan funded status and the postretirement plan funded status, SUMFS=PENFS+OPEBFS.

The SFAS No. 158 Adjustment

This study takes the position that rather than focus solely on the funded status of the postretirement plans, the metric of interest is the SFAS No. 158 balance sheet adjustment. This required adjustment is a direct measure of the balance sheet impact of the new recognition requirement. A firm that has already recognized fully the funded status of its postretirement obligations will not be affected by the new reporting requirement. A firm will only be affected to the degree that the obligation has previously been unrecognized. The balance sheet adjustment is calculated as the difference between the funded status of the plan and the already recognized balance sheet asset or liability.

For pension plans the adjustment is calculated as the PENFS less the amount already recognized on the balance sheet (PENBS), PENADJ = PENFS-PENBS. For postretirement plans, the adjustment is calculated as the OPEBFS less the amount already recognized on the balance sheet (OPEBBS), OPEBADJ=OPEBFS-OPEBBS. The combined overall adjustment is calculated by summing the pension and postretirement adjustments SUMADJ=PENADJ+OPEBADJ.[9]

Table 2 Panel A presents descriptive statistics for the sample firms' postretirement plans at the time (Fiscal Year 2005) the FASB added pension accounting to its agenda. Generally, pension plans of the firms in the sample are highly underfunded. The mean (median) underfunding is $504 ($223) million. The generally unfunded OPEB plans are underfunded by $1.2 billion on average (median $260 million) bringing the total mean (median) underfunded status of postretirement plans to $1.75 billion ($609 million).

[9] Calculating the adjustment from Compustat is not straightforward, especially for companies that were required to make the Minimum Liability Adjustment. Also, the calculation differs for the pre and post SFAS No. 158 period. See Appendix 1 for details.

The adjustments surprisingly indicate that the smoothing provisions have resulted in the balance sheet asset/liability for pension plans (as opposed to OPEBs) not being remotely connected to the funded status.

The average OPEB adjustment is negative $465 million. That amount brings the balance sheet liability to $1.2 billion (the OPEB average funded status). This indicates that the balance sheet, on average, reflects an underfunded OPEB status of nearly $0.8 billion, two-thirds of the actual underfunded status. For the pension plans, the story is quite different. Although the average underfunding is $0.504 billion, the average adjustment to the balance sheet is nearly twice that at negative $1.02 billion. Thus, although the average firm's pension plan is underfunded by $0.5 billion, the balance sheet shows an overfunding status in nearly that same amount.

This point is further illustrated by the correlations reported in Table 2 Panel B. The correlation between the ADJ variable and the balance sheet asset/liability is negative and significant for pension plans (-0.871) but is positive for OPEB plans (+0.938).

Note that for over 90% of the firms in the sample, the provisions of SFAS No. 158 required a downward adjustment to their balance sheets. The 90th percentile for the SFAS No. 158 total adjustment is negative $33 million.

SFAS No. 158 and Balance Sheet Volatility

Two variables related to volatility are used in the study, duration (DUR) and asset mix (MIX). In addition to its impact on the levels of a firm's assets, liabilities and equity, recognition of the postretirement funded status increases the volatility of corporate balance

sheets. The increased volatility could come from one of two places, volatility in the PBO, or volatility in the plan assets, PPA. [10]

The potential volatility introduced to the balance sheet by the volatility in the PBO is not the same for all firms. The extent to which the PBO is affected by changes in the discount rate (and other pension assumptions) is a function of the pension plan's duration. The duration of pension liabilities is the weighted average years to maturity of the obligations. The present values of the dollar amounts due each year are used as the weights. The longer the duration, the larger the impact of a change in the discount rate on the PBO. Firms with pension liabilities of longer duration will have higher balance sheet volatility than firms with similar liabilities of shorter duration.

A measure of duration (DUR) is not provided directly in the pension disclosures. As a surrogate for duration, the ratio of service cost to the sum of interest cost and service cost is used in the literature (see Brown (2004)). A stream of payments made further in the future is characteristic of debt with a long duration. In terms of pension plans, this is consistent with relatively newer plans with younger employees. Such plans tend to have low interest cost (since the PBO is small) relative to service cost. Plans with lower duration, on the other hand, are consistent with more mature plans whose employees are nearer to retirement. For such plans, the ratio of interest to service cost is considerably higher. Thus DUR is measured as the ratio of service cost to the sum of interest cost and service cost. The average duration of 0.34 is consistent with "older" plans as on average interest costs are twice as large as service costs.

[10] These points are also made in Xerox's Comment letter (see Appendix 2) "After initial application, volatility in capital markets may erode investor confidence as asset valuation or discount rate changes drive additional instability to companies balance sheets and equity ratios."

The potential volatility of the PPA depends on the nature of the pension assets. Pension assets are generally invested in either equity or bond securities. Like any portfolio of assets, the asset mix impacts the expected return and risk of the portfolio. The higher the equity-to-bond mix, the greater the volatility introduced to the balance sheet through the PPA. On the other hand, along with higher volatility (risk) comes higher expected returns. Firms whose plans are more heavily invested in equities are (in the long run) more likely to improve the funded status of their pension plans thereby minimizing the impact on their balance sheets. The higher the equity-to-bond mix of pension assets, the greater the expected positive impact (the return on these assets) on the balance sheet. The variable MIX is obtained directly from the Compustat pension data base. Table 2 Panel A indicates that on average (mean and median) firms allocated 70% of their investments to equities. The range was relatively narrow with a MIX of 60% for the 10^{th} percentile and 80% for the 90^{th} percentile.

SECTION 5. MANAGEMENT REACTION TO SFAS NO. 158

This portion of the study examines management's response to the proposal and issuance of SFAS No. 158. First, I examine management's lobbying behavior following the release of the exposure draft. Then, I examine whether management took steps to mitigate the effects of the required balance sheet recognition by manipulating the assumed Discount Rate (DR).

5.1 Comment Letters and Lobbying Efforts

A number of studies has examined the characteristics of firms that undertook lobbying efforts in response to various changes in reporting and disclosure requirements. Francis (1987) examined the lobbying efforts of firms who in the early 1980s opposed the provisions that led to SFAS No. 87, Employers' Accounting for Pensions and showed that "both firm size and the potential for adverse financial statement consequences explain the decision to lobby."

This study extends the above analysis to the lobbying efforts following the release of the SFAS No. 158 exposure draft. I examine whether adverse financial statement consequences relating to pension accounting led to lobbying efforts. However, there is one important difference between the SFAS No. 87 and SFAS No. 158 environments. SFAS No. 87 changed and standardized how pension assets/liabilities and costs were to be calculated and reported. SFAS No. 158, on the other hand, does not change any of the calculations; it just requires recognition of items previously disclosed. The Francis (1987) study is similar to Deakin (1989) and more recently Ramanna (2008). Deakin (1989) examines the characteristics of companies that lobbied in response to the proposed change in the 1970s

from Full Cost reporting to Successful Efforts, whereas Ramanna (2008) examines lobbying support related to changes in the reporting of goodwill.

At the other extreme, Lo (2003) examines lobbying efforts relating to the manner in which executive compensation was to be disclosed. Conceptually, then, my study is similar to Dechow et al. (1996) who examined the debate surrounding SFAS No. 123 relating to requiring recognition or disclosure of stock based compensation. However, this study again differs in that the item in question, the funded status of postretirement plans, was previously disclosed and then recognized as a result of SFAS No. 158.

Hypotheses

SFAS No. 158 requires the recognition of the funded status of a firm's pension and postretirement plans on its balance sheet. For most firms, such plans were underfunded and recognizing the underfunding would have negative effects on their financial statements. The resultant "weaker" balance sheets would make it more difficult for firms to obtain financing and limit their operational choices. Additionally, for firms with debt covenants, the recognition might result in certain ratios falling below critical cutoff levels restricting their ability to pay dividends, take on other debt, expand their business and/or trigger technical default of the loan.

Following the release of the SFAS No. 158 exposure draft (ED) on March 31, 2006, the FASB invited the public to submit comment letters on the proposed reporting requirement. One would expect managers of firms who would be adversely affected by the rule change to submit their comments and lobby against the new proposal. Under the SFAS No. 158 ED, firms with underfunded plans would be required to adjust their balance sheets to reflect the full underfunded status of their plans. This recognition could potentially have negative affects

on their debt covenant agreements and introduce volatility to the balance sheet. Thus I expect that the more underfunded the plans, the more the firm will be motivated to lobby against the provisions of the ED. Formally, this leads to the following hypothesis:

Hypothesis 1a: The more the firm's pension and postretirement plans are underfunded, the higher the likelihood that the firm lobbied against the implementation of SFAS No. 158.

It can, however, be argued that it is not the funded status itself that is of relevance but rather the adjustment to the balance sheet mandated by SFAS No. 158 that is crucial. A firm that has already recognized the full funded status of its plans on the balance sheet would not be affected by the new proposal. To the extent that, prior to the ED, the funded status has already been recognized it would lessen any incentives to lobby against the ED. On the other hand, the greater the unrecognized portion of the funded status, the more likely these managers would lobby against the ED. This leads to the refinement of the above hypothesis:

Hypothesis 1b: The greater (more negative) the required adjustment to the firm's balance sheet to reflect its funded status, the higher the likelihood that the firm lobbied against the implementation of SFAS No. 158.

The extent to which balance sheet recognition would prompt lobbying efforts could be expected to hold true for firms (already) in a weakened financial position or those whose covenants were in danger of being violated. One would expect that firms with high leverage, low net worth and poor liquidity would be more inclined to send a comment letter. In hypothesis form:

Hypothesis 1c: The greater a firm's financial distress, the higher the likelihood that the firm lobbied against the implementation of SFAS No. 158.

Data

The SFAS No. 158 ED was released March 31, 2006. Following its release, the FASB received comment letters from various constituents affected by the proposed rule. These constituents included private firms (that sponsored plans), actuaries, CPA firms, industry and investment associations, investors and academics. Of the over 200 letters received by the FASB, 51 were from S&P 500 firms included in my sample.

These letters were examined and classified as to whether they were non-supportive, supportive or neutral with respect to the implementation of the new rule. Not surprisingly, only three (of the 51 in the sample) were supportive or neutral. The other 48 non-supportive respondents in the sample had reservations about the new rule.

The nature of the concerns mentioned by the 48 respondents was not uniform; they are enumerated in Table 3.[11] Many companies were concerned about the effect on financial statements in terms of volatility, negative impact on ratios and the consequences for bond covenants.

Other firms felt that the PBO was not the appropriate measure for the liability and preferred the ABO. Similar concerns were expressed by some respondents as to whether the OPEB obligation, the APBO, was really a liability as it was felt that sponsoring firms had the prerogative to cancel the previously promised healthcare benefits.

Implementation and timing issues were the concern of other firms who felt that the ruling should be delayed because

i. firms and/or the markets needed more time before they could absorb the effects of the new rule and/or

[11] Many respondents offered more than one reason. As such the total tabulated in Table 3 exceeds 48.

ii. The FASB should delay the implementation of Phase I of the Pension project until Phase II – the income statement - was completed.

An example of a comment letter is provided in Appendix 2. The letter by the Xerox Company was chosen because it covers many of the issues discussed above and mentioned in other letters.

Research Design

The dependant variable used in the analysis is COMLET, a binary variable set to 1 for the 48 firms that sent non-supportive comment letters and 0 for the firms in the sample who did not submit comment letters.[12]

Pension and Postretirement Plan Variables[13]

The funded status (FS) of the plan is defined as the plan assets minus the obligation. For defined benefit pension plans, it is PENFS and for OPEB plans it OPEBFS. The combined overall funded status is SUMFS=PENFS+OPEBFS. I expect the overall funded status to be negatively related to COMLET.

The impact of SFAS No. 158 can be measured by the balance sheet adjustment required by firms to recognize the full funded status of their plans on the balance sheet. The adjustment is calculated by taking the difference between the disclosed funded status of the plan and the already recognized portion of the plan. For DB pension plans, the adjustment is PENADJ; for postretirement plans, the adjustment is OPEBADJ. The combined overall adjustment is calculated by summing the pension and postretirement adjustment SUMADJ = PENADJ + OPEBADJ. I expect the overall adjustment to be negatively related to COMLET.

[12] The three firms who sent supportive comment letters are excluded from the analysis.
[13] What follows is a brief description of the funded status and adjustment. More detail is provided in Section 4.

Variables Measuring Financial Distress

As noted, the extent to which balance sheet recognition would prompt lobbying efforts would most likely hold true for firms already in a weakened financial position or those whose covenants were in danger of being violated. One would expect that firms with high leverage, low net worth and poor liquidity would be more inclined to send a comment letter. Thus in addition to examining the funded status of the plan and the required adjustment, I also examine the following variables:

LEV is the firm's leverage ratio measured as long-term debt divided by total assets. The higher the leverage, the more likely the firm will tend to respond to the ED and I expect a positive relationship between LEV and COMLET.

NW is the firm's net worth i.e., its common equity[14]. Net worth is one of the most common measures used in debt covenant agreements and the one often violated. Since recognition of the unfunded status will, by virtue of the AOCI, reduce NW, a negative relation between NW and COMLET is expected.

INC is defined as net income divided by assets; a measure of ROA. Higher values of INC would indicate lower levels of financial distress and I expect a negative relation between INC and COMLET.

Control Variable

SIZE measured as the log of the firm's assets is included primarily as a control variable. Francis (1978) found that larger firms lobbied at the time SFAS 87 was issued. Larger firms may lobby more because they are more visible and/or have more resources and connections leading them to believe that they may have a greater chance of influencing an

[14] To standardize across firms, *NW* is divided by assets.

outcome (Watts and Zimmerman (1986)). Additionally, in the context of this study, larger firms also have larger pension plans and the resultant impact may be greater for them. A positive relation between SIZE and COMLET is expected.

Univariate Results

Table 4 presents results for a difference in mean tests between the firms that responded and those that did not for the various variables of interest. As expected, firms that responded were larger than firms that did not. The difference in means for SIZE (+1.016) was significant at the .0001 level.

For the variables that measure financial distress (LEV, NW, and INC) the differences are all in the expected direction (consistent with hypothesis 1c). Firms that wrote comment letters had higher leverage (+0.02), lower income (-0.007) and lower net worth (-0.065). In terms of significance, NW proved to be significant (at a .0001 level). It should be noted that NW is directly affected by the new recognition requirement as adjustments are made to AOCI, a component of NW.

The analysis of the funded status and adjustment variables yields interesting results. Three measures of standardization are provided for these variables: (i) the benefit obligation (PBO and APBO), (ii) total assets of the firm and (iii) market value of equity. As the table indicates, results for FS are sensitive to the method of standardization.

For the funded status, when measured as a percentage of the benefit obligation, the results are counterintuitive. The lobbyists have a (statistically significant) "stronger" funded status (+0.052). However, when viewed as a percentage of the firm's assets or market value, results are consistent with expectations (-0.008 and -0.223), albeit not at a significant level when standardized by total assets.

For the adjustment variables, the direction of the results is consistent with expectations. Firms that lobbied on average would have a larger (more negative) adjustment to their balance sheet as a result of the provisions of SFAS No. 158. The result is significant and consistent using any of the three scalers (-0.05, -0.02, and -0.02).

Multivariate Analysis

I use a Logit analysis to test the overall relationship between COMLET and the various independent variables.[15] The following four relations were examined:

$$COMLET = \alpha + \beta_1 SIZE + \beta_2 INC + \beta_3 NW + \beta_4 LEV \quad (1)$$

$$COMLET = \alpha + \beta_1 SIZE + \beta_2 INC + \beta_3 NW + \beta_4 LEV + \beta_5 SUMFS \quad (2a)$$

$$COMLET = \alpha + \beta_1 SIZE + \beta_2 INC + \beta_3 NW + \beta_4 LEV + \beta_6 SUMADJ \quad (2b)$$

$$COMLET = \alpha + \beta_1 SIZE + \beta_2 INC + \beta_3 NW + \beta_4 LEV + \beta_5 SUMFS + \beta_6 SUMADJ \quad (2c)$$

where COMLET is set to 1 for those 48 firms that sent non-supportive comment letters,

and 0 for the remaining firms in the sample,

SUMFS is the overall funded status,

SUMADJ is the overall SFAS No. 158 adjustment

LEV is the firm's leverage ratio,

NW is the firm's net worth (i.e. its common equity),

SIZE is the log of the firm's assets,

INC is defined as net income divided by assets; a measure of ROA.

The first equation includes the control variable SIZE and the three financial distress variables. In Equations (2a) – (2c), the funded status and/or the adjustment are included in the equation. Results are presented in Table 5 with SUMFS and SUMADJ standardized by total

[15] Results for a probit analysis were similar.

assets. The Chi-square tests are significant for all four equations indicating that the probability of lobbying against the ED is related to the independent variables.

Looking at the individual variables, the control variable SIZE maintains its significance. The coefficient is positive, as expected, and significant at the .000 level (ranging from +0.457 and +0.562). The financial distress levels, however, do not maintain the expected relation at a significant level. Only NW maintains the expected sign (ranging from -1.243 and -1.784), however, the coefficients are not significant. LEV (ranging from -0.983 and -1.529) and INC (ranging from +1.926 and +3.056) now have signs in the opposite direction than expected.

Moving to the pension and postretirement variables, the results are highly significant in the expected negative direction. Furthermore, the results indicate that the impetus for lobbying is not the funded status per se, but rather, the required balance sheet adjustment. The more negative the adjustment, the greater the probability the firm will lobby against the ED. The coefficient on SUMFS (-5.521) is significant at the .028 level of significance. In equation 2b when SUMFS is replaced by SUMADJ (-11.394), the level of significance improves to .001. When both variables are included the significance of SUMFS "disappears" – its coefficient (-0.52) is insignificantly negative. SUMADJ (-10.965), however, maintains its significance.

The table also provides information as to the change in the estimated probability of submitting a comment letter given a one standard deviation shift in a given variable from its mean (with all other variables measured at their mean value). A one standard deviation shift above (below) the mean for SUMADJ will result in an approximately 7% decrease (increase)

in lobbying probability. For the SUMFS, the change is 6%, but it is subsumed by the effect of SUMADJ when both are included in the model.

For the univariate results of Table 4, the funded status (standardized by the market value) was significantly more negative for those that wrote comment letters and significance levels were similar to those for the balance sheet adjustment. Accordingly, Table 6 presents the results with SUMFS and SUMADJ standardized by the market value of equity. The Logit results, however, are again similar to those when the variables are standardized by total assets. Taken by themselves, SUMADJ has a higher level of significance than SUMFS (.004 versus .035) and when they are both included in the equation, SUMFS (0.899) is again subsumed by SUMADJ (0.38).

Summary

These results are consistent with mangers' lobbying behavior being influenced by their own circumstances. Firms that would be more adversely affected by the recognition requirement were more likely to submit comment letters. The results also support the notion that managers do not view disclosure as a substitute for recognition. Given these results one would expect managers to take other actions that could help mitigate the negative impact of the SFAS No. 158 adjustment. One such step, increasing the discount rate is examined in the next section.

5.2 SFAS No. 158 and Discount Rate Choice

The behavior reported in the previous section provides evidence that managers whose firms would be negatively impacted by the balance sheet recognition required by SFAS No. 158 took action by lobbying against its provisions. Another possibility is for managers to attempt to mitigate the balance sheet impact of SFAS No. 158 by exercising their discretion in

choosing the discount rate (DR) and hence affecting the calculation of the PBO and the postretirement plans' funded status. Prior evidence indicates that managers manipulate pension plan assumptions in order to disclose a more favorable funded status. In this section, I will investigate whether following SFAS No. 158, managers chose higher DRs to affect the balance sheet reporting of the funded status.

Hypotheses

Managers can mitigate the negative effects of the SFAS No. 158 required balance sheet recognition by choosing higher DRs. Higher (lower) DRs result in a smaller (larger) PBO. The degree to which the SFAS No. 158 recognition requirement negatively impacts a firm's balance sheet can be measured by the size of the required balance sheet adjustment. The greater the required adjustment, the more negative the impact of SFAS No. 158. This leads to the following hypothesis:

Hypothesis 2a: The more negative the required SFAS No. 158 adjustment, the higher the discount rate chosen following implementation of SFAS No. 158.

As discussed in Section 4, the required balance sheet recognition of the funded status of postretirement plans introduces increased volatility to corporate balance sheets. Firms with pension liabilities of longer duration will have higher balance sheet volatility than firms with similar liabilities of shorter duration, and this may mitigate their desire to manipulate DR following SFAS No. 158. Moreover, firms with higher durations do not require as large an increase in the DR to achieve the desired effect on the PBO. This leads to the following hypothesis.

Hypothesis 2b: The longer the duration of the pension liability, the lower the discount rate chosen following implementation of SFAS No. 158.

The balance sheet volatility introduced by SFAS No. 158 will be higher for firms with a higher equity to bond mix of pension assets. One would expect managers to raise the discount rate to mitigate the higher balance sheet volatility introduced by these pension assets. On the other hand, along with higher volatility (risk) comes higher expected returns. Firms whose plans are more heavily invested in equities are more likely to improve the funded status of their pension plans thereby minimizing the impact on their balance sheets. The higher the equity-to-bond mix of pension assets, the greater the expected positive impact (the return on these assets) on the balance sheet. Thus, for these firms managers may not feel the need to raise discount rates and it may be that a positive relation exists between the discount rate and the equity-to-bond mix of pension assets. These arguments lead to the following, non-directional hypothesis:

Hypothesis 2c: The discount rate choice following implementation of SFAS No. 158 should vary across firms according to the equity-to-bond mix of pension assets.

Research Design

The following equation is used to test the relation between management's choice of Discount Rate and the impact of SFAS No. 158. The equation is estimated for the companies in the sample that had the required data for the years 2003 to 2007.

$$\begin{aligned} DEV_{it} &= \alpha + \beta_1 PENFSn_{it} + \beta_2 PENADJn_{it} + \beta_3 DUR_{it} + \beta_4 MIX \\ &+ \beta_5 SIZE_{it} + \beta_6 LEV_{it} + \beta_7 INC_{it} \\ &+ \beta_8 PENFSn * 158_{it} + \beta_9 PENADJn * 158_{it} + \beta_{10} DUR * 158_{it} + \beta_{11} MIX * 158_{it} \\ &+ \sum_{n=11}^{13} \beta_{n+1} YEAR + \sum_{n=14}^{25} \beta_{n+1} INDUSTRY \end{aligned} \quad (3)$$

Where DEV is the deviation of a firm's discount rate from the benchmark discount rate, PENFSn is the normalized pension funded status (defined below), PENADJn is the normalized SFAS No. 158 pension adjustment (defined below), DUR is the (relative)

duration of the firm's pension plans, MIX is the percentage of pension assets invested in equities, SIZE is the (log of the) firm's assets, LEV is the firm's leverage ratio, INC is the firm's ordinary income standardized by total assets – in effect a measure of ROA. PENFSn*158, PENADJn*158, DUR*158, and MIX*158 are interaction terms set to 0 in years prior to the implementation of SFAS No. 158 (pre 2006) and to PENFn, PENADJn, DUR, and MIX respectively following the implementation of SAFAS No. 158. These variables show the effects on discount rate choice post SFAS No. 158. YEAR and INDUSTRY are year and industry dummy variables.

The dependent variable, DEV_t, is measured as the difference between firm i's discount rate and the benchmark rate for year t. Following Blankley and Swanson (1995) and Brown (2004), I use the deviation from the benchmark rate rather than the discount rate itself to control for changes in discount rates due to overall market conditions. The benchmark rate used is the mean rate used by the firms in the industry based on the Fama-French 12 industry classifications.[16] Thus, $DEV_{it} = DR_{it} - MDR_t$ where DR_{it} is the actual discount rate used by company i and MDR_t is the mean discount rate used by the firms in that particular industry. Using the industry mean discount rate is consistent with prior literature (Asthana 1999).

The funded status of the plan is defined as the plan assets minus the obligation. For defined benefit pension plans, it is the pension plan assets less the projected benefit obligation, PENFS = PPA – PBO. However, in order to test the hypothesis that managers choose higher discount rates to improve the (reported) funded status one would ideally need

[16] The Fama-French industries are defined on Ken French's website http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/Data_Library/det_12_ind_port.html.

to know the PBO without any manipulation of the discount rate. The only data available, reported PBO, already incorporates any such manipulations, if they exist.

Thus, to conduct the research, one must 'adjust' the reported PBO to what it would have been had the firm used the 'appropriate' discount rate. This requires two assumptions (1) a definition of the 'appropriate' discount rate and (2) a procedure to adjust the reported PBO. The 'appropriate' discount rate is generally assumed to be either the 'mean/median' discount rate used by the firms in the sample or a rate derived from external sources such as the yield on a portfolio of high rated bonds (Aaa or Aa). Again, following prior literature (Ashtana 1999) this study uses the mean industry discount rate as the benchmark rate (MDR)[17].

There is a number of procedures that can be used to adjust the reported PBO. This paper uses the method suggested by Bulow (1979) and used by Feldstein and Morck (1982). The normalized pension benefit obligation (PBOn) for company i in year t is

$$PBOn_{it} = PBO_{it} x \frac{DR_{it}}{MDR_t}$$

A pension plan's funded status is defined as plan assets (PPA) less the pension liability (PBO). The normalized funded status is similarly defined as plan assets less the normalized pension liability (PBOn). To facilitate comparison between firms, the funded status is deflated by the adjusted PBOn.

$$PENFSn_{it} = \frac{(PPA_{it} - PBOn_{it})}{PBOn_{it}}$$

Consistent with prior literature, I expect the funded status to be negatively related to DEV.

[17] To check for robustness Moody's index of Aaa Corporate bond yields was used, with no effect on the reported results.

An interaction term, PENFSn*158, is included to capture the effect of the normalized funded status post SFAS No. 158 on the discount rate choice. If managers raised discount rates to improve the funded status when it was merely disclosed in the footnotes (as established in prior research), they would certainly be expected to do so once SFAS No. 158 required the recognition of the funded status. Thus, ceteris parabus, β_8 is expected to be negative.

The normalized pension adjustment (PENADJn) is calculated in the same manner as the normalized funded status. The non-normalized pension adjustment is calculated as the difference between the disclosed funded status of the plan and the already recognized portion of the plan. It is a measure of the difference between the disclosed and recognized funded status. For DB pension plans the adjustment is calculated as the PENFS less the amount already recognized on the balance sheet (PENBS), PENADJ = PENFS-PENBS. To calculate the normalized pension adjustment, I took the difference between the normalized pension funded status (PENFSn) and the amount already recognized on the balance sheet (PENBS), PENADJn = PENFSn-PENBS. Prior to the adoption of SFAS No. 158 managers who attempt to improve the funded status of their plans are at the same time minimizing the difference between the disclosed and recognized funded status. Thus, I expect the adjustment to be negatively related to DEV.

The interaction term PENADJn*158 is included to capture the effect of the difference between the disclosed and recognized funded status post-SFAS No. 158. This is a direct measure of the impact SFAS No. 158 had on the firm's balance sheet and is the key variable in my study. This adjustment, rather than the funded status per se, should induce managers to raise the discount rate. Thus, β_9 is expected to be negative.

Prior literature (e.g., Brown 2004) argues that changes in the discount rate are negatively related to duration, DUR, since for firms with longer duration, smaller changes are needed to get the same effect. Thus, β_3 is expected to be negative.

The interaction term DUR*158 captures the effect of duration on the choice of discount rate following SFAS No. 158. Plans with longer durations are more volatile than plans of shorter durations. Also, a change in the discount rate will induce greater volatility to the balance sheet through changes in the PBO. These arguments would suggest that β_{10} should be negative. On the other hand, the increased volatility introduced by these plans may induce managers to raise discount rates following SFAS No. 158, leading to a positive relation between duration and DEV. Which of these effects dominates is an empirical question, thus no prediction is made for β_{10}.

The percentage of pension assets invested in equities, MIX, is the second measure of volatility. The higher the percentage invested in equities, the more volatile the funded status of the plan. Under the new rules of SFAS No. 158 this volatility directly increases the volatility in the balance sheet. On the other hand, higher equity mix means higher expected return, potentially leading to healthier balance sheets. Thus, I make no prediction for β_4 or β_{11}.

The last three independent variables (SIZE, LEV and INC) are control variables that can affect management's choice of discount rate. These variables act as proxies for factors that prior literature has shown to be related to management reporting choices (Feldstein and Morck (1982), Kwon (1994), Asthana (1999) and Fried, Davis, and Davis-Friday (2008)).

The SIZE variable may interact with the choice of discount rates in numerous ways. Larger size firms may have pension plans that are "healthier" and thus may not need to manipulate the discount rate. Additionally, larger firms are more visible and may be subjected

to greater regulatory scrutiny and thus are reluctant to raise discount rates. Thus, the expected sign of β_5 is negative.

Leverage (LEV) is defined as the firm's long-term debt divided by the sum of long-term debt and common equity. The higher a firm's leverage (LEV), the more incentive a firm has to improve the funded status of its pension plans, thus β_6 is expected to be positive.

The last control variable is INC. Firms with higher income may not have any incentive to manipulate the discount rate to improve income. Thus, such firms may be willing to use rates closer to the benchmark. Higher income firms, therefore, would tend to use lower rates, and the coefficient β_7 is expected to be negative.

Results

Table 7 provides descriptive statistics for the sample firms. On average the firms in the sample have plans that are underfunded (-0.157) and need to make negative SFAS No. 158 adjustments to their balance sheets (-0.227). More interesting is that the average negative adjustment is greater than the average underfunding; indicating that prior to SFAS No. 158, the average firm was recognizing a pension asset, and would have to adjust post SFAS No. 158 to recognize a pension liability. The sample firms have about two thirds of their pension assets invested in equities (0.685). The average duration (0.338) is consistent with interest costs being twice as large as service costs.

Table 8 summarizes the correlations among the variables used in the study. Consistent with prior research, DEV is negatively related (-0.078) to the funded status of the plan (PENFSn) as well as (-0.084) to the duration of the obligation (DUR). DEV is also negatively related (-0.471) to the balance sheet adjustment (PENADJ). This result may be a function of (Pre-158) symmetry between the PENADJ and the funded status or as per the hypothesis, a

reaction to the post-158 balance sheet recognition. MIX is found to be positively correlated (0.038) with the choice of discount rate, consistent with the idea that managers increase the discount rate because of the volatility of the pension assets. However it is not very significant. Surprisingly, INC is found to be negatively correlated with DEV (-0.076) and SIZE is positively correlated with DEV (0.075).

Before running the full equation (3) a reduced model was used to verify that my sample is consistent with those used in prior literature. The reduced model includes the funded status, the plan duration and mix, along with the three control variables. Prior literature has established that the funded status of the pension plan, as well as the duration of the obligation, is negatively related to the discount rate choice. The results of the reduced model are summarized in Table 9 and are consistent with prior studies. The discount rate choice is found to be negatively related to the funded status (-0.333) as well as to the duration of the obligation (-0.198).

Table 9 Panel A presents results for equation (3).[18] As predicted by Hypothesis 2a, the coefficient on PENADJ*158 is negative (-0.772) and significant. Post-SFAS No. 158 the discount rate choice is related to the balance sheet adjustment. The more negative the required adjustment, the higher the chosen discount rate. Moreover, it is clear from the results that it is the adjustment itself rather than the funded status of the plans that is driving managerial choice. Although the coefficient on PENFSn is negative (-0.304) and significant, as expected; the coefficient on PENFSn*158 is significant and positive (+0.305). To capture the effect of the PENFSn after SFAS No. 158, we need to sum the coefficients β_1 (-.304) and β_8 (+.305). Post-SFAS No. 158, the effect of the funded status is essentially zero. It is no longer the

[18] For brevity, the industry and year dummies are not reported.

driving force being taken into consideration by managers in determining the discount rate. Rather it is the SFAS No. 158 adjustment that is driving management discount rate choice.

Consistent with prior literature, the discount rate choice pre-SFAS No. 158 is negatively related to the duration of the pension plan (-0.314). Post-SFAS No. 158, however, we find a result similar to that of the funded status. The coefficient on DUR*158 is significant and positive (+0.384). When we sum the coefficients β_3 (-0.314) and β_{10} (+0.384), we find that post-158 the duration is actually positively related to the discount rate choice. This result is consistent with managers being concerned with the increased balance sheet volatility associated with these plans and increasing the discount rate to mitigate the impact on the balance sheet.

The percentage of pension plan assets invested in equities (MIX) is positively (+0.318) and significantly related to the discount rate. This is consistent with Hypothesis 2c that firms with more volatile pension assets mitigate the effects of the volatility by increasing the discount rate to lower the PBO. However, there was no incremental effect of SFAS No. 158 on management behavior, since the coefficient on MIX*158 (+0.179), although positive, was not statistically significant.

The only control variable with a statistically significant effect on the choice of discount rate is INC. The coefficient on INC was found to be negative (-0.301) and marginally significant. These results are consistent with firms with higher income being less inclined to manipulate the discount rate choice and is consistent with prior literature.

Table 9 Panel B repeats the prior analysis incorporating the OPEB funded status and required adjustment. The table analyzes the effects of the overall (pension plus OPEB) funded

status and adjustment. As expected, for the reduced model the discount rate is negatively related to both the funded status (-0.406) and the duration of the plans (-0.214).

The results of the full model are consistent with my hypotheses. The discount rate choice following SFAS No. 158 is negatively related (-0.886) to the required balance sheet adjustment (SUMADJSn*158) and the negative relation is statistically significant. The coefficient (0.042) on the interaction term SUMFSn*158 is insignificant, indicating that following SFAS No. 158 the funded status is not as great a determinant of discount rate choice as the balance sheet adjustment.

The results for the MIX and DUR variables are consistent with firms with more volatile plans choosing higher discount rates. MIX is positively (0.360) and significantly related to the discount rate choice, while the MIX*158 coefficient is positive (0.012) but not significant. Consistent with prior literature, DUR is negatively related (-0.219) to the discount rate choice. However, DUR*158 is positive (+0.220) and marginally significant (at the 10% level). These results are consistent with firms with more volatile plans choosing higher discount rates following SFAS No. 158.

Summary

The results presented in this section show that managers took steps to mitigate the negative effect of the SFAS No. 158 requirement of recognition of the funded status of postretirement plans on the balance sheet. Managers increased the discount rate used in calculating the reported and now recognized postretirement obligation. Following SFAS No. 158 the discount rate increase was directly related to the SFAS No. 158 adjustment, not the funded status of the plan. The greater the required adjustment, the higher the discount rate chosen. The discount rate was also found to be related to the degree of volatility introduced

to the balance sheet through the recognition of the postretirement funded status on the balance sheet. The greater the volatility of the pension assets or obligation, the higher the discount rate chosen.

SECTION 6. MARKET REACTION TO SFAS NO. 158 PRONOUNCEMENTS

Hypotheses

The discussion and results presented in the previous sections indicate that the new recognition rules resulted in increased contracting costs to firms. The last phase of my study therefore, focuses on investor reaction to the pronouncements that led to the new reporting requirements.

The dates of the various pronouncements that I examine are listed below:

November 10, 2005 (OA) FASB's original announcement that they were embarking on an overhaul of pension accounting,

March 31, 2006 (ED) Exposure Draft is released,

September 30, 2006 (FP) Final pronouncement is released.[19]

For the majority of firms, reporting the funded status of the postretirement benefit plans results in both weaker and more volatile balance sheets (see Table 2). Market reaction to each of these pronouncements is expected to be negative. Thus, the first hypothesis (presented in alternative form) is

Hypothesis 3: Firms with postretirement benefit plans should have negative market reactions around the time of the events (OA, ED and FP) leading to the release of SFAS No. 158.

[19] Focusing on these dates is consistent with prior literature. Lev (1979) examined the effects of the SFAS 19 exposure draft only. Marquardt and Wiedman (2007) examined two dates related to FASB staff position 129-a, its initial release and its final draft. They also examined four dates related to EITF Issue No. 04-8. They look at the original announcement, the initial draft, a public meeting leading up to its release, and its final ratification. Espahbodi et al. examine the effects of the SFAS No. 132 exposure draft and its reversal. In their case they looked at a total of 12 events. The issuance of SFAS No. 132 lent itself to more event dates since it was preceded by much debate and controversy. The initial required recognition was retracted and the final version of SFAS No. 132 required disclosure while encouraging recognition. In contrast, the issuance of SFAS No. 158 proceeded relatively smoothly with only minor changes from the original draft to the final pronouncement.

Market Reaction and Firm Attributes

The market reaction would not be expected to be uniform across all firms that have defined benefit plans. If the cause of the negative market reaction is the impact on the balance sheet, then one would expect that the market reaction should be positively related to the magnitude of the adjustment to the firm's financial statements.

Hypothesis 4a: The market reaction around the time of the events (OA, ED and FP) leading to the release of SFAS No. 158 should be positively related to the magnitude of the SFAS No. 158 adjustment.

The arguments made with respect to negative market reaction being related to contracting costs could be expected to hold true for firms (already) in a weakened financial position or those whose covenants were in danger of being violated. One would therefore expect that investors would respond more negatively to firms with high leverage and poor liquidity. In hypothesis form,

Hypothesis 4b: The market reaction around the time of the events (OA, ED and FP) leading to the release of SFAS No. 158 should be positively related to the level of financial distress of the firm.

As discussed in Section 4, balance sheet reporting of the funded status of postretirement plans introduces increased volatility to corporate balance sheets. The increased volatility is not the same for all firms. Firms with pension liabilities of longer duration have higher balance sheet volatility than firms with similar liabilities of shorter duration. One expects the markets to react more negatively to this increased volatility for firms with longer duration liabilities. This leads to the next hypothesis:

Hypothesis 4c: The longer the duration of the pension liability, the more negative the market reaction around the time of the events (OA, ED and FP) leading to the release of SFAS No. 158.

The potential volatility of the funded status also depends on the nature of the PPA. The higher the equity-to-bond mix, the greater the volatility introduced to the balance sheet through the PPA. One expects the market to react negatively to the higher volatility associated with these pension assets. On the other hand, along with higher volatility (risk) comes higher expected returns. The markets may view firms more heavily invested in equities as being more likely to improve the funded status of their pension plans thereby minimizing the impact on their balance sheets. The higher the equity-to-bond mix of pension assets, the greater the expected positive impact (the return on these assets) on the balance sheet. Thus, it may be that a positive relation exists between the market reaction and the equity-to-bond mix of pension assets. These arguments lead to the following, non-directional hypothesis:

Hypothesis 4d: The market reaction around the time of the events (OA, ED and FP) leading to the release of SFAS No. 158 should be different for firms with a relatively high equity-to-bond mix of pension assets.

Overall Market Reaction - Research Design and Results

To test for market reaction, I use the model introduced by Schipper and Thompson (1983) and used more recently by Espahbodi et al. (2002) and Marquardt and Wiedman (2007). The model tests whether the market reacts in a significant manner to (any of) the three events relating to the recognition requirement of SFAS No. 158. This event-study approach, as described in this and the following section, has the advantage that (1) it allows for simultaneously analyzing multiple announcement events relating to the same accounting rule

change and (2) it controls for the potential cross-sectional correlation resulting from the (announcement) events occurring on the same day for all firms in the sample.[20]

The following regression is estimated for the portfolio of firms in my sample.

$$R_{pt} = \alpha + \beta R_{mt} + \sum_{k=1}^{K} \gamma_k D_{kt} + \varepsilon_t \qquad (4)$$

where R_{pt} is the return on day t of the portfolio of the S&P firms in the sample; R_{mt} is the (CRSP equal-weighted) market return on day t; D_{kt} is a dummy variable set to one for each day of the window corresponding to each of the (K=) 3 announcement events (OA, ED and FP) and is zero otherwise; α and β are parameter estimates and ε_t is the error term. The key variable of interest is the dummy coefficient γ_k, the estimated mean effect or abnormal return for event k (=1,2,3). In terms of Hypothesis 3 presented earlier, I expect the γ_k to be negative.

The regression was estimated over the two-year period (503 trading days) starting from January 3, 2005 through December 29, 2006. That is, the parameters were estimated starting over 10-months prior to the first pronouncement event and ending three-months after the last event.

Two portfolio weighting schemes were used. In the first, the N=337 firms in the sample are equally weighted ($R_{pt} = \frac{1}{N}\sum_i R_{it}$) where R_{it} is the ith firm's return on day t. The second weighting scheme is designed to correct for the possibility of cross-sectional heteroskedasticity and involves first running equation (4) for each firm individually. The

[20] See Sefcik and Thompson (1986) for a more elaborate and formal presentation of these issues.

diagonal elements of the cross-sectional covariance matrix of the residuals are then used to weight the returns.[21]

To verify that the results found were not related to other factors occurring on the announcement dates, I also estimated equation (4) for the ninety-two (92) S&P 500 companies[22] that did not have defined-benefit (pension or OPEB) plans and that had the required return data.

Results

Table 10 presents the results for the market return tests. Panel A shows the results for the 337 S&P500 firms that had defined benefit plans. The first three columns correspond to the results for the three announcement dates for the equally weighted portfolios. The last three columns present results for the portfolios with individual firms' returns weighted by their respective (residual) variances.

Three windows were examined: a 2-day window (-1,0); an intermediate 5-day (-3,+1) window and a longer 11-day (-5 to +5) window. Pension accounting and the on-off balance sheet controversy surrounding it has been widely discussed in the financial and academic literature. The issues were not new and were well known. Therefore, given the relative interest in the issue, one might expect reaction to "leakages" prior to the pronouncement and (almost) immediate reaction to the release. As such, the short and intermediate windows were

[21] More specifically, $R_{pt} = \sum_i \frac{c_i}{C} R_{it}$ where c_i is the inverse of the ith firm's residual variance and $C=\sum c_i$.

[22] See Table 1.

not symmetric around the announcement date (t=0).[23] The longer 11-day window was included to verify whether there was any reversal following the initial reaction.

The results were relatively uniform across all windows, portfolio weighting approaches and pronouncement dates.[24] There was significant negative market reaction for the ED pronouncement date with significance levels of .05 and .01. Mean excess negative returns ranged from -0.2% to -0.6% with the shorter windows having larger (more negative) mean negative excess returns. In terms of economic significance, the results translate into losses of approximately 1.2% for the two-day window, 1.3% for the five-day window and 2.1% over the longer 11-day window.[25] For the OA and FP events, the returns were not significantly different from zero except for the 2-day window for the OA where the results for the variance-weighted portfolio were significant but positive (+0.4%).

An argument can be made that one might expect the greatest reaction to occur around the release of the exposure draft (ED). At the initial announcement date (OA) investors were unsure of the direction the FASB would ultimately take and by the time the final pronouncement (FP) was issued there was no longer any news in the release.

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[23] This argument follows that of Marquardt and Weidman (2007) but in the *opposite* direction. They also used a non-symmetric window (-1 to +3) because the event they were interested in (accounting for contingent convertible securities) was not widely followed and only affected a relatively small number of companies. Thus, they argued that there were would be some time required until the market adapted/learned about the implications of the announcement and one would not expect reaction or anticipation (leakage) prior to the announcement.

[24] The tests were also run using a value-weighted market index. The results were similar with all the ED windows (for both equal-weighted and variance-weighted portfolios) showing significant negative mean excess returns. The significance levels were slighter lower than those above (.10 or .05 rather than .05 or .01) and the negative excess returns were correspondingly smaller.

[25] The losses are calculated by multiplying the mean loss by the number of days; i.e. for the 2-day window 0.6% x 2=1.2%; for the five-day window 0.26% x 5 = 1.3% and for the 11-day window 0.19% x 11 =2.1%.
The mean market value of equity for the sample of firms was approximately $25 billion. Thus over the respective holding periods, in dollar terms the losses were between one-quarter to one-half billion dollars.

The results for the 92 S&P 500 firms that did not have defined benefit plans (Panel B) were markedly different. In contrast to the S&P firms with defined benefit plans, none of the dummy coefficients was significant for the ED announcement date at conventional levels of significance. This holds true for all three windows examined. This 'non result' reinforces the findings in Panel A, that the negative market reaction was related to the release of the SFAS No. 158 exposure draft.

For the first event, the OA date, (with the exception of the intermediate length window for the equally weighted portfolio), the returns were significantly positive (ranging from +0.2% to +0.9%) for the S&P 500 firms without defined benefit plans. For my sample of firms that had defined benefit plans, the returns were also positive (ranging from +0.1% to +0.4%) but generally non-significant. This result is not inconsistent with the possibility that the OA event lessened the otherwise positive news around that date. I return to this issue in the next section.

Market Reaction and Firm Attributes

The results for Hypothesis 3 indicate that on average there was a negative market reaction to the ED event. This does not mean necessarily that there was no effect at all on the other (OA and FP) days. It may be that the negative reaction some firms experienced was on average "hidden" by a positive or non-negative reaction experienced by other firms. Moreover, one would expect that if the reaction was related to the SFAS No. 158 recognition requirements, the size of the reaction should be related to the effect on the firm's financial statements and/or other firm attributes related to contracting effects.

Firm Attributes

I examine the following firm-specific variables to examine their interaction with the market reaction, PENADJ, OPEPADJ, DURATION, MIX, LEV, INC, SIZE and FSDUM. These variables have been defined earlier. The first two (PENADJ and OPEBADJ, standardized by the firm's assets) directly address Hypothesis 4a – the relation between the balance sheet effect and the size of the market reaction to SFAS No. 158. LEV and INC test the extent to which financial distress plays a role in any market reaction (Hypothesis 4b) and DUR and MIX are related to balance sheet volatility (Hypotheses 4c and 4d). SIZE is included as a control variable. Additionally, a dummy variable, FSDUM, equal to 1 for firms with underfunded pension plans is also included in the analysis. The purpose of this variable is to control for the possibility that firms with overfunded plans are immune to the effects of SFAS No. 158.

Prior to running the interaction analysis, some insights can be gained by looking at each variable individually. Firms in the sample were partitioned into quartiles based on the firm attributes mentioned above and equation (4) was then run for both the highest and lowest quartile for each variable. If these variables were indeed determinants of the negative market reaction one would expect to see a difference in the market reaction for the high and low quartiles. The direction of the difference depends on the variable in question.

For the balance sheet adjustment variables, PENADJ and OPEBADJ, Hypothesis 4a predicts the lower quartile (more negative adjustments) had a more negative return than the high quartile firms.

For the financial distress measures, Hypothesis 4b would predict a more negative market reaction for firms with a greater degree of financial distress. Thus for leverage (LEV)

the higher quartile firm should have a more negative market reaction. For income (INC) on the other hand, it is the lower quartile firms who are financially distressed and thus the returns for that partition should be more negative than the high quartile INC firms.

For duration, my first measure of volatility, Hypothesis 4c predicts a more negative market reaction for firms with long duration plans. Thus, I expect that the high quartile firms will have more negative returns than the low quartile firms. As for mix, the second measure of volatility, in line with Hypothesis 4c, one would expect the market reaction to be different between the two quartiles either because of the higher risk associated with the assets or because of the higher expected returns of the assets.

No prediction is made for the SIZE quartiles, since size is only a control variable. Finally, the market reaction for firms with underfund plans should be more negative than for firms with overfunded plans.

The results are summarized in Table 11. The most significant difference (for the ED event) across quartiles occurs for the SFAS No. 158 balance sheet adjustment variables. For both PENADJ and OPEBADJ, the lower quartile firms had more negative and significant reactions (-0.0060 and -0.0089) than the higher quartile firms (-0.0051 and -0.0039). The results for the OPEBADJ are stronger than those for the PENADJ, since the negative market reaction for the high quartile firms (-0.0039) is significant at the 10% level, while the negative reaction for the low quartile firms is more than twice as large (-0.0089) and significant at less than 1% level.

For the financial distress variables, LEV and INC, only the results for leverage are as expected. Higher leverage firms had a more negative market reaction (-0.0070) than lower leverage firms (-0.0046). There is no difference across quartiles for income.

The volatility measures, DUR and MIX, provide puzzling results. The more volatile the pension plans, the less negative the market reaction. The higher duration quartile firms had a less negative (-0.0042) market reaction than the lower duration quartile (-0.0074). The market reaction was less negative for the higher mix quartile (-0.0055) than for the lower mix quartile (-0.0074). For mix this could be attributed to the higher expected return for the pension plan assets, but for duration the result is puzzling.

There is no difference across SIZE quartiles and the results for the under or over funded groups are consistent with expectation. For the ED event underfunded plans had a more negative (-0.0062) and significant market reaction than overfunded plans (-0.0049). For the OA event, while overfunded plans enjoyed a positive and significant market reaction (0.0047), the underfunded firms did not. In other words, although not a negative reaction, the underfunding attenuated the positive market returns.

Methodology

The methodology used to test for the interaction between firm attributes and market reaction is an extension of the model used earlier. It is designed to avoid the effect of residual correlation resulting from the event (pronouncement) being the same for all firms. The procedure involves three steps:

Step 1: The N x P matrix F is formed. The first column of F is comprised of 1's (the constant term). The other columns of F contain the (P-1) individual firm attributes that I intend to examine; PENADJ, OPEPADJ, DURATION, MIX, LEV, INC, SIZE and FSDUM described above. The attributes are taken from the firm's 2005 financial statements and since there are

238 firms (See Table 1) with data availability F is a matrix with (N=) 238 rows and (P=) 9 columns.[26]

Step 2: Create the matrix W as below and use the 9 W'_p rows as portfolio weights to create 9 $\breve{R}_{pt}$ portfolio returns. Formally:

$$W = \begin{bmatrix} W_1' \\ W_2' \\ \vdots \\ W_p' \end{bmatrix} = (F'F)^{-1}F' \tag{5}$$

$$\breve{R}_{pt} = W_p' R_{it} \text{ , p=1,2…,P, t=1,2….T, i=,1…N} \tag{6}$$

Where: W =P x N matrix of portfolio weights (In my analysis P is 9 and N=238 firms)

W_p' = pth row of portfolio weights corresponding to the pth characteristic (pth column in F)

F = N x P matrix

$\breve{R}_{pt}$ = return on portfolio p on day t

R_{it} = N x 1 vector of individual firm's security returns on day t

Step 3: The regression below is run p(=9) times.

$$\breve{R}_{pt} = \alpha_p + \beta_p \breve{R}_{mt} + \sum_{k=1}^{K} b_{pk} D_{kt} + \breve{e}_{pt} \tag{7}$$

The expression is, of course, similar to that of (4) with one important caveat – the interpretation of the dummy coefficients, b_{pk} . They are identical to what would be found in a cross-sectional regression of abnormal returns against the firm characteristics and they measure the effect of a given characteristic (and only that characteristic) on the market reaction. However, the standard errors calculated in this 3-step procedure account for the

[26] These 238 firms had similar results as the 337 firm full sample presented in Table 11. For the 2-day window, there were insignificant positive (negative) returns for the OA (FP) pronouncement date. For the ED pronouncement date, the excess negative return was also –0.6% and the t-value of -3.16 was significant at the .002 level of significance.

cross-sectional dependence as well as multi-collinearity among the firm attributes and the t-values are correspondingly lower.[27]

Results

Table 12 presents the results for interaction of market reaction and firm attributes. The equations were run using the two-day (-1,0) window with the pension data (PENADJ and OPEBADJ) standardized by the firm's assets. The results are interesting in that none of the financial distress variables (LEV, INC) or those related to balance sheet volatility (DUR and MIX) shows any significance for any of the three pronouncement dates. Somewhat surprisingly, neither does the PENADJ. The OPEB effect is however very positively significant (0.1354 and 0.1537) for both the original announcement (OA) as well as at the time of the ED pronouncement (.05 and .01 levels of significance respectively).

In the discussion of the results (Table 10) relating to Hypothesis 3, it was noted that although on average, there was a positive excess mean return around the OA pronouncement date, the excess was smaller than that for S&P 500 firms that did not have defined benefit plans. It was argued that the smaller positive return may be a result of negative reaction to the OA announcement. The OPEBADJ results substantiate this conjecture. The statistically significant positive coefficient (0.1354) for the OA pronouncement date indicates that market returns were smaller for firms that had potentially larger negative adjustments due to their OPEBs.

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[27] The alternative procedure with the cross-sectional dependence would involve calculating γ_{ik} for each firm *i* individually using (4) and then running the following cross-sectional regression (*k*=) 3 times

$$\gamma_{ik} = b_{1k} + b_{2k}PENADJ_i + b_{3k}OPEBADJ_i + b_{4k}DUR_i + b_{5k}MIX_i + b_{6k}LEV_i + b_{7k}INC_i + b_{8k}SIZE_i + b_{9k}FSDUM_i.$$

The resultant b_{pk}'s *(p=1,..9 and k=1,2,3)* would be identical to those obtained from (7) but with "overstated" t-values and significance levels.

It is not clear why the market reacts more to OPEBADJ than to PENADJ. One might speculate that the market had anticipated the FASB to require the recognition of the funded status of pension plans but did not expect that they would also include OPEBs. In the comment letters, a number of writers took the position that the APBO did not meet the definition of a liability since the firm could always backtrack and rescind previously promised benefits.

SECTION 7: FUTURE RESEARCH

The study can be extended in several ways. It would be interesting to examine the comment letters submitted by accounting firms to the FASB following the SFAS No. 158 exposure draft. I could then explore whether there is a relation between the comments submitted by an accounting firm and its clients. Further, I can investigate the relation between a firm's chosen discount rate following SFAS No. 158 and its auditor's comments related to the exposure draft.

The analysis of management postretirement assumptions could be extended to include not only the discount rate choice, but the rate of compensation increase as well. It would also be of interest to examine whether firms shifted their asset mix following SFAS No. 158. In addition, the volatility measure of duration could be estimated using SFAS 132-R disclosures related to the future payouts of postretirement liabilities. Finally, the market reaction analysis could be extended to further explore why the market reaction was driven by the OPEB adjustment rather than the pension adjustment.

SECTION 8. SUMMARY AND CONCLUSION

This study contributes to the discussion of whether disclosure is equivalent to recognition. SFAS No. 158 does not require any new information be disclosed. Rather, it requires that previously disclosed information in financial statement footnotes be recognized on the face of the firm's balance sheet. If disclosure is a substitute for recognition there should be no economic impact resulting from this new reporting requirement. The study, however, demonstrates a link between a measure of the shift from disclosure to recognition (the SFAS No. 158 adjustment), and management choice and market reaction.

The study examines two potential economic consequences of the new recognition requirement. First, if managers take action to mitigate the effects of the requirement. Second, if the market reacts to the new accounting requirement.

The study demonstrates that management does not view disclosure as equivalent to recognition. Managers lobbied against the implementation of the new reporting requirement and the likelihood of lobbying was related to the required balance sheet adjustment. Second, managers used higher discount rates to mitigate the negative balance sheet impact of the new recognition requirement. Furthermore, the discount rate choice was found to be related to the required balance sheet adjustment. The more negative the adjustment, the higher the chosen discount rate. The discount rate choice was also found to be linked to the degree of volatility introduced to the balance sheet by the recognition requirement. The more volatile the pension assets or liabilities, the higher the chosen discount rate.

The finding of a significantly negative market reaction at the time of the release of the SFAS No. 158 exposure draft indicates that the market does not view disclosure as equivalent to recognition. Furthermore, the market reaction was found to be positively related to the size

of the balance sheet adjustment. The more negative the balance sheet adjustment, the more negative the market reaction. However, the reaction was found to be driven by the OPEB adjustment and not the pension adjustment. The study failed to find a link between the market reaction and the degree of volatility in the pension assets and liabilities. The study also did not find a link between the market reaction and the degree of financial distress of the firm.

The findings presented in the study have important implications for the recognition versus disclosure debate, because it documents a significant market reaction to the relocation of already disclosed information from the financial statements footnotes to the balance sheet.

Table 1: Sample Selection

Firms in S&P 500 on all three dates*	475
Less:	
Firms without postretirement plans	92
	383
Less:	
Firms missing CRSP data	46
Returns Sample	337
Less:	
Firms missing Compustat data	99
Sample	238

* Pronouncement Dates:

OA - November 10, 2005	FASB first announced they were embarking on an overhaul of pension accounting.
ED - March 31, 2006	Exposure Draft is released.
FP - September 30, 2006	Final pronouncement is released.

Table 2 Panel A: Descriptive Statistics of Postretirement Plans

($ in millions)

	N	Median	Mean	Standard Deviation	10th Percentile	90th Percentile
Pension Obligation (PBO)	238	1,880	5,435	12,133	300	12,205
Pension Plan Assets	238	1,627	4,930	11,612	221	11,465
Pension Plan Funded Status	238	(223)	(504)	1,380	(1,575)	149
SFAS No. 158 Pension Adj	238	(275)	(1,016)	2,789	(2,214)	(28)
OPEB Obligation	238	295	1,605	6,772	21	2,425
OPEB Assets	238	0	356	1,633	0	713
OPEB Funded Status	238	(260)	(1,249)	5,220	(1,951)	(16)
SFAS No. 158 OPEB Adj	238	(38)	(465)	2,369	(628)	14
Total Funded Status	238	(609)	(1,753)	5,771	(3,433)	(42)
SFAS No. 158 Total Adj	238	(363)	(1,482)	4,883	(2,986)	(33)
MIX	238	0.700	0.691	0.105	0.600	0.800
DUR	238	0.342	0.346	0.127	0.197	0.504

Pension Obligation is the defined benefit pension plan obligation (PBO), Pension Plan Assets is the defined benefit pension plan assets (PPA), Pension Plan Funded Status is the funded status of the defined benefit pension plan it is the difference between the plan assets and obligation (PPA – PBO), SFAS No. 158 Pension Adj. (PENADJ) is the SFAS No. 158 pension adjustment (see Appendix I for calculation), OPEB Obligation is the other postretirement benefit plan obligation (APBO), OPEB Assets is the other postretirement plan assets (OPEBPA), OPEB Funded Status is the funded status of the other postretirement plan it is the difference between the plan assets and obligation (OPEBPA – APBO), SFAS No. 158 OPEB Adj. (OPEBADJ) is the SFAS No. 158 OPEB adjustment (see Appendix I for calculation), Total Funded Status (SUMFS) is the total funded status of the firm's postretirement plans (Pension Funded Status + OPEB Funded Status), SFAS No. 158 Total Adj. (SUMADJ) is the total SFAS No. 158 adjustment (PENADJ + OPEBADJ), MIX is the percentage of pension assets invested in equities, DUR is the (relative) duration of the firm's pension plans.

Table 2 Panel B: Correlations of SFAS No. 158 adjustment and balance sheet net asset/ liability for both OPEB and Pension Plans

	OPEBADJ	OPEBBS	PENADJ	PENBS
OPEBADJ	1.000			
OPEBBS	**0.938** **0.000**	1.000		
PENADJ	**0.791** **0.000**	**0.842** **0.000**	1.000	
PENBS	**-0.722** **0.000**	**-0.733** **0.000**	**-0.871** **0.000**	1.000

Bold indicates significance at the .05 level or higher.

OPEBADJ is the SFAS No. 158 OPEB adjustment (see Appendix 1 for calculation),
OPEBBS is the balance sheet net asset/ liability for OPEB plans,
PENADJ is the SFAS No. 158 pension adjustment (see Appendix 1 for calculation),
and PENBS is the balance sheet net asset/liability for pension plans.

Table 3: Nature of Comment Letter Concerns

This table provides a summary of the nature of the 'non-supportive' comment letters submitted by the sample firms to the FASB following the release of the SFAS No. 158 exposure draft.

Financial Statement Effects		
Financial Statement Volatility	14	
Financial Ratios and Debt Covenants	19	33
Measurement of Obligation		
ABO versus PBO	43	
Appropriateness of APBO	11	54
Delay Implementation		
Should wait until Phase II	19	
More time needed	18	37
Implementation Issues		
Concern with measurement date requirement	39	
Retroactive application	16	55
Other		
Increased actuarial costs	7	
May lead to freezes and terminations	7	
Miscellaneous (e.g. deferred taxes, transition asset, shift in pension asset allocations)	8	22
Total		201

Table 4: Comment Letters Univariate Analysis

This table compares firm attributes of the 48 sample firms who submitted comment letters to the FASB following the release of the SFAS No. 158 exposure draft and the 187 sample firms that did not submit a comment letter. I expect firms who submitted comment letters to be larger, have a higher level of financial distress, have less funded postretirement plans, and a larger (more negative) SFAS No. 158 adjustment.

	Comment Letter N = 48	No Comment Letter N = 187	Difference			
	Mean	Mean	Expected Sign	Mean Difference	t-stat	p-value
SIZE	10.623	9.607	+	**1.016**	4.502	0.00
INC	0.056	0.064	-	-0.007	-0.698	0.24
NW	0.284	0.349	-	**-0.065**	-2.115	0.02
LEV	0.401	0.380	+	0.020	0.518	0.30
Standardized by Benefit Obligation						
SUMFS	-0.221	-0.273	-	**0.052**	2.025	0.02
SUMADJ	-0.223	-0.173	-	**-0.050**	-2.898	0.00
Standardized by Total assets (of firm)						
SUMFS	-0.069	-0.061	-	-0.008	-0.734	0.23
SUMADJ	-0.056	-0.037	-	**-0.020**	-2.654	0.00
Standardized by Market Value of equity						
SUMFS	-0.296	-0.073	-	**-0.223**	-2.936	0.00
SUMADJ	-0.056	-0.037	-	**-0.020**	-2.654	0.00

Bold indicates significance at the .05 level or higher.

SIZE is the (log of the) firm's assets, INC is the firm's ordinary income standardized by total assets – in effect a measure of ROA, NW is the firm's net worth i.e. its common equity, LEV is the firm's leverage ratio, SUMFS is the sum of the pension funded status and the OPEB funded status, SUMADJ is the sum of the SFAS No. 158 pension adjustment and the SFAS No. 158 OPEB adjustment.

Table 5: Results for Logit Analysis (SUMFS & SUMADJ standardized by total assets)

This table presents analysis of the determinants of a firm submitting a 'non-supportive' comment letter following the SFAS No. 158 exposure draft. I expect firms that are larger, more financially distressed, with less funded postretirement plans, and a larger (more negative) SFAS No. 158 adjustment to be more likely to submit a comment letter. In this table the funded status and adjustment variables are scaled by total assets.

$$COMLET = \alpha + \beta_1 SIZE + \beta_2 INC + \beta_3 NW + \beta_4 LEV \quad (1)$$
$$COMLET = \alpha + \beta_1 SIZE + \beta_2 INC + \beta_3 NW + \beta_4 LEV + \beta_5 SUMFS \quad (2a)$$
$$COMLET = \alpha + \beta_1 SIZE + \beta_2 INC + \beta_3 NW + \beta_4 LEV + \beta_6 SUMADJ \quad (2b)$$
$$COMLET = \alpha + \beta_1 SIZE + \beta_2 INC + \beta_3 NW + \beta_4 LEV + \beta_5 SUMFS + \beta_6 SUMADJ \quad (2c)$$

Coefficients and significance levels in ()

Variable	Expected Sign	(1)	(2a)	(2b)	(2c)
CONSTANT		**-5.281 (.004)**	**-6.648 (.001)**	**-6.239 (.001)**	**-6.325 (.002)**
SIZE	+	**0.457 (.001)**	**0.562 (.000)**	**0.533 (.000)**	**0.540 (.000)**
INC	-	3.056 (.366)	1.946 (.577)	1.980 (.587)	1.926 (.598)
NW	-	-1.576 (.299)	-1.243 (.426)	-1.784 (.266)	-1.750 (.280)
LEV	+	-0.983 (.361)	-1.236 (.251)	-1.525 (.169)	-1.529 (.168)
SUMFS	-		**-5.521 (.028)**		-0.520 (.878)
SUMADJ	-			**-11.394 (.001)**	**-10.965 (.014)**
Chi-Square (Significance)		**19.79 (.0005)**	**24.44 (.0002)**	**30.63 (.0000)**	**30.65 (.0000)**

Bold indicates significance at the .05 level or higher.

Table 5, continued

Change in Probability – the effect of a one standard deviation change in the given variable from its mean (holing all other variables at their mean) on the probability of the firm submitting a comment letter.

SIZE	+	0.10	0.12	0.11	0.11
INC	-	0.03	0.02	0.02	0.02
NW	-	-0.04	-0.03	-0.03	-0.05
LEV	+	-0.04	-0.04	-0.04	-0.05
SUMFS	-		-0.06		-0.01
SUMADJ	-			-0.07	-0.07

COMLET is a binary variable set to 1 for firms who submitted a 'non-supportive' comment letter, SIZE is the (log of the) firm's assets, INC is the firm's ordinary income standardized by total assets – in effect a measure of ROA, NW is the firm's net worth i.e. its common equity, LEV is the firm's leverage ratio, SUMFS is the sum of the pension funded status and the OPEB funded status, SUMADJ is the sum of the SFAS No. 158 pension adjustment and the SFAS No. 158 OPEB adjustment.

Table 6: Results for Logit Analysis (SUMFS & SUMADJ standardized by market value of equity)

This table presents analysis of the determinants of a firm submitting a 'non-supportive' comment letter following the SFAS No. 158 exposure draft. I expect firms that are larger, more financially distressed, with less funded postretirement plans, and a larger (more negative) SFAS No. 158 adjustment to be more likely to submit a comment letter. In this table the funded status and adjustment variables are scaled by market value of equity.

$COMLET = \alpha + \beta_1 SIZE + \beta_2 INC + \beta_3 NW + \beta_4 LEV$ (1)
$COMLET = \alpha + \beta_1 SIZE + \beta_2 INC + \beta_3 NW + \beta_4 LEV + \beta_5 SUMFS$ (2a)
$COMLET = \alpha + \beta_1 SIZE + \beta_2 INC + \beta_3 NW + \beta_4 LEV + \beta_6 SUMADJ$ (2b)
$COMLET = \alpha + \beta_1 SIZE + \beta_2 INC + \beta_3 NW + \beta_4 LEV + \beta_5 SUMFS + \beta_6 SUMADJ$ (2c)

Coefficients and significance levels in ()

Variable	Expected Sign	(1)	(2a)	(2b)	(2c)
CONSTANT		**-5.281 (.004)**	**-5.343 (.005)**	**-5.462 (.005)**	**-5.446 (.005)**
SIZE	+	**0.457 (.001)**	**0.485 (.001)**	**0.495 (.001)**	**0.493 (.001)**
INC	-	3.056 (.366)	3.392 (.341)	4.306 (.240)	4.355 (.236)
NW	-	-1.576 (.299)	-1.769 (.250)	-1.971 (.209)	-1.983 (.207)
LEV	+	-0.983 (.361)	-2.019 (.076)	**-2.396 (.042)**	**-2.385 (.043)**
SUMFS	-		**-1.997 (.035)**		0.179 (.899)
SUMADJ	-			**-6.249 (.004)**	**-6.543 (.038)**
Chi-Square (Significance)		**19.79 (.0005)**	**28.04 (.0000)**	**31.97 (.0000)**	**31.98 (.0000)**

Bold indicates significance at the .05 level or higher.

Table 6, continued

Change in Probability – the effect of a one standard deviation change in the given variable from its mean (holing all other variables at their mean) on the probability of the firm submitting a comment letter.

SIZE	+	0.10	0.10	0.11	0.11
INC	-	0.03	0.03	0.04	0.04
NW	-	-0.04	-0.05	-0.06	-0.06
LEV	+	-0.04	-0.07	-0.09	-0.09
SUMFS	-		-0.14		0.01
SUMADJ	-			-0.37	-0.39

COMLET is a binary variable set to 1 for firms who submitted a 'non-supportive' comment letter, SIZE is the (log of the) firm's assets, INC is the firm's ordinary income standardized by total assets – in effect a measure of ROA, NW is the firm's net worth i.e. its common equity, LEV is the firm's leverage ratio, SUMFS is the sum of the pension funded status and the OPEB funded status, SUMADJ is the sum of the SFAS No. 158 pension adjustment and the SFAS No. 158 OPEB adjustment.

Table 7: Descriptive Statistics for selected variables for 238 sample firms

	Median	Mean	Standard Deviation	10th Percentile	90th Percentile
DEV	-0.151	0.000	0.736	-0.793	1.107
LEV	0.387	0.395	1.661	0.108	0.706
INC	0.043	0.051	0.071	0.004	0.123
SIZE	9.538	9.604	1.477	7.851	11.555
MIX	0.698	0.685	0.125	0.576	0.800
DUR	0.335	0.338	0.144	0.182	0.512
PENFSn	-0.187	-0.157	0.256	-0.385	0.101
PENADJn	-0.231	-0.227	0.123	-0.375	-0.081

Where DEV is the deviation of a firm's discount rate from the benchmark discount rate,
LEV is the firm's leverage ratio,
INC is the firm's ordinary income standardized by total assets – in effect a measure of ROA,
SIZE is the (log of the) firm's assets,
MIX is the percentage of pension assets invested in equities,
DUR is the (relative) duration of the firm's pension plans,
PENFSn is the normalized pension funded status, and
PENADJn is the normalized SFAS No. 158 pension adjustment.

Table 8: Univariate Correlations for selected variables for 238 sample firms

	DEV	LEV	INC	SIZE	MIX	DUR	PENFSn	PENADJn
DEV	1.000							
LEV	0.017 0.400	1.000						
INC	**-0.076** **0.000**	**-0.205** **0.000**	1.000					
SIZE	**0.075** **0.000**	**0.086** **0.000**	**-0.271** **0.000**	1.000				
MIX	0.038 0.150	**-0.071** **0.007**	**0.072** **0.006**	-0.032 0.224	1.000			
DUR	**-0.084** **0.000**	**-0.079** **0.000**	**0.171** **0.000**	**0.054** **0.007**	**0.111** **0.000**	1.000		
PENFSn	**-0.078** **0.000**	-0.027 0.188	-0.004 0.837	**0.140** **0.000**	0.048 0.071	**-0.053** **0.009**	1.000	
PENADJn	**-0.471** **0.000**	-0.025 0.365	**-0.067** **0.014**	-0.038 0.163	**-0.095** **0.001**	**-0.080** **0.003**	0.011 0.695	1.000

Bold indicates significance at the .05 level or higher.

Where DEV is the deviation of a firm's discount rate from the benchmark discount rate,
LEV is the firm's leverage ratio,
INC is the firm's ordinary income standardized by total assets – in effect a measure of ROA,
SIZE is the (log of the) firm's assets,
MIX is the percentage of pension assets invested in equities,
DUR is the (relative) duration of the firm's pension plans,
PENFSn is the normalized pension funded status, and
PENADJn is the normalized SFAS No. 158 pension adjustment.

Table 9: Multivariate Results of Discount Rate Choice using Pension Plan Variables

This table report results of OLS regressions used to examine determinants of the discount rate choice following the issuance of SFAS No. 158. The dependant variable is the deviation of the discount rate from the industry mean discount rate. Firms with lower funded postretirement plans, a larger (more negative) SFAS No. 158 adjustment, or are financially distressed are expected to choose higher discount rates. Firms with postretirement plans of longer duration and larger firms are expected to choose lower discount rates. The discount rate is also expected to be different across firms depending on the proportion of plan assets invested in equities.
(t-values in ())

(1) Reports results of a reduced model using only variables used in prior literature
(2) Reports results of the full model and measures the affect of SFAS No. 158 on the discount rate choice

Panel A: Pension plan funded status and adjustment variables only.

	Intercept	PENFSn	PENADJn	DUR	MIX	LEV	INC	SIZE	PENFSn *158	PENADJn *158	DUR *158	MIX *158	
Expected Sign		-	-	-	?	+	-	-	-	-	-	?	
Coefficients	-0.889	**-0.333**		**-0.198**	**0.392**	0.015	-0.162	0.012					(1)
p-value	0.718	**0.000**		**0.010**	**0.000**	0.176	0.418	0.211					
Coefficients	**-0.920**	**-0.304**	**-1.206**	**-0.314**	**0.318**	0.009	-0.301	0.007	**0.305**	**-0.772**	**0.384**	0.179	(2)
p-value	**0.000**	**0.000**	**0.000**	**0.002**	**0.016**	0.385	0.095	0.434	**0.009**	**0.000**	**0.006**	0.913	

Bold indicates significance at the .05 level or higher.

Table 9, continued

Panel B: Sum funded status and sum adjustment (pensions and OPEBS) variables.

	Intercept	SUMFSn	SUMADJn	DUR	MIX	LEV	INC	SIZE	SUMFSn *158	SUMADJn *158	DUR *158	MIX *158	
Expected Sign		-	-	-	?	+	-	-	-	-	-	?	
Coefficients	**-0.911**	**-0.406**		**-0.214**	**0.404**	0.014	-0.169	0.009					(1)
p-value	**0.000**	**0.000**		**0.005**	**0.000**	0.219	0.394	0.318					
Coefficients	**-0.972**	**-0.300**	**-0.871**	**-0.219**	**0.360**	0.009	-0.261	0.007	0.042	**-0.866**	0.220	0.012	(2)
p-value	**0.000**	**0.001**	**0.000**	**0.024**	**0.005**	0.350	0.148	0.425	0.735	**0.000**	0.103	0.940	

Bold indicates significance at the .05 level or higher.

DEV is the deviation of a firm's discount rate from the benchmark discount rate, PENFSn is the normalized pension funded status, PENADJn is the normalized SFAS No. 158 pension adjustment, DUR is the (relative) duration of the firm's pension plans, MIX is the percentage of pension assets invested in equities, LEV is the firm's leverage ratio, INC is the firm's ordinary income standardized by total assets – in effect a measure of ROA, SIZE is the (log of the) firm's assets, and PENFSn*158, PENADJ*158, DUR*158, MIX*158 are interaction terms of the respective variables with a dummy variable set to 1 post-SFAS No. 158.

Table 10: This table examines the stock market reaction to the issuance of SFAS No. 158. Returns are calculated for 337 firms with postretirement plans and for a control group of 92 firms without postretirement plans. Mean excess returns are calculated using a market model and two-day, five-day, and eleven-day event windows for the period 1/01/2005 through 12/31/2006, for event dates related to the issuance of SFAS N0. 158.
(t-values in ())

Panel A – Mean excess returns for 337 S&P firms with defined benefit plans.

	Equally Weighted Portfolio			Portfolio Weighted by Variances		
Event: Window	OA	ED	FP	OA	ED	FP
Short (-1 to 0)	.0024 (1.28)	**-.0061 (-3.24)**	-.0005 (-.25)	**.0043 (2.07)**	**-.0058 (-2.75)**	-.0009 (-0.40)
Intermediate (-3 to +1)	.0005 (0.40)	**-.0026 (-2.15)**	.0009 (0.73)	.0013 (0.99)	**-.0026 (-1.96)**	.0006 (0.42)
Long (-5 to +5)	.0009 (1.10)	**-.0019 (-2.34)**	.0008 (1.00)	.0008 (0.87)	**-.0022 (-2.38)**	.0009 (1.01)

Panel B – Mean excess returns for 92 S&P firms without defined benefit plans.

	Equally Weighted Portfolio			Portfolio Weighted by Variances		
Event: Window	OA	ED	FP	OA	ED	FP
Short (-1 to 0)	**.0084 (3.10)**	-.0040 (-1.47)	-.0005 (-.18)	**.0093 (3.62)**	-.0041 (-1.58)	-.0009 (-0.36)
Intermediate (-3 to +1)	.0023 (1.31)	-.0008 (-0.46)	-.0015 (-0.86)	.0031 (1.88)	-.0009 (-0.55)	.0008 (-0.51)
Long (-5 to +5)	**.0024 (2.06)**	-.0005 (-0.42)	.0007 (0.61)	**.0027 (2.43)**	-.0011 (-0.96)	.0011 (0.95)

Bold indicates significance at the .05 level or higher.

Pronouncement Dates:

OA - November 10, 2005	FASB first announced they were embarking on an overhaul of pension accounting.
ED - March 31, 2006	Exposure Draft is released.
FP - September 30, 2006	Final pronouncement is released.

Table 11: This table further examines the stock market reaction to the issuance of SFAS No. 158. Firms are grouped by quartile based on a given attribute and by the funded status of their defined benefit pension plans. The returns of the upper and lower quartile are reported. Mean excess returns are calculated using a market model and two-day (-1, 0) event windows for the period 1/01/2005 through 12/31/2006, for event dates related to the issuance of SFAS N0. 158.

		OA			ED			FP		
	Expect	High	Low	Diff	High	Low	Diff	High	Low	Diff
DUR	H < L	0.0020 (0.344)	0.0026 (0.278)	-0.0006 (0.820)	**-0.0042** **(0.053)**	**-0.0074** **(0.002)**	0.0032 (0.151)	0.0002 (0.940)	0.0000 (0.996)	0.0002 (0.937)
MIX	?	0.0014 (0.546)	0.0012 (0.594)	0.0002 (0.902)	**-0.0055** **(0.015)**	**-0.0076** **(0.001)**	0.0021 (0.238)	0.0005 (0.833)	0.0011 (0.612)	-0.0006 (0.721)
LEV	H < L	0.0020 (0.413)	0.0014 (0.523)	0.0006 (0.796)	**-0.0070** **(0.005)**	**-0.0046** **(0.032)**	-0.0024 (0.344)	-0.0010 (0.683)	0.0005 (0.802)	-0.0015 (0.531)
INC	H > L	-0.0013 (0.581)	0.0033 (0.228)	-0.0046 (0.112)	**-0.0057** **(0.017)**	**-0.0058** **(0.034)**	0.0001 (0.976)	0.0001 (0.952)	-0.0007 (0.803)	0.0008 (0.775)
SIZE		0.0046 (0.097)	0.0040 (0.074)	0.0006 (0.838)	**-0.0061** **(0.027)**	**-0.0053** **(0.020)**	-0.0008 (0.728)	0.0002 (0.942)	-0.0008 (0.708)	0.0010 (0.672)
PENADJ	H > L	**0.0054** **(0.028)**	0.0017 (0.434)	0.0037 (0.067)	**-0.0051** **(0.037)**	**-0.0060** **(0.009)**	-0.0009 (0.641)	-0.0002 (0.921)	0.0005 (0.824)	0.0007 (0.709)
OPEBADJ	H > L	0.0028 (0.190)	0.0002 (0.943)	0.0027 (0.143)	-0.0039 (0.072)	**-0.0089** **(0.000)**	**0.0050** **(0.007)**	0.0001 (0.957)	-0.0002 (0.930)	-0.0003 (0.862)
		Under funded	Over funded		Under funded	Over funded		Under funded	Over funded	
Under / Over funded	U < O	0.0016 (0.420)	**0.0047** **(0.049)**	-0.003 (0.058)	**-0.0062** **(0.001)**	**-0.0049** **(0.042)**	-0.0013 (0.413)	-0.0002 (0.925)	-0.0009 (0.707)	0.0007 (0.646)

Bold indicates significance at the .05 level or higher.

DUR is the (relative) duration of the firm's pension plans, MIX is the percentage of pension assets invested in equities, LEV is the firm's leverage ratio, INC is the firm's ordinary income standardized by total assets – in effect a measure of ROA, SIZE the (log of the) firm's assets, PENADJ is the pension SFAS No. 158 adjustment standardized by assets, OPEBADJ is the OPEB SFAS No. 158 adjustment standardized by assets, Under / Over funded is the funded status of the firm's pension plans. OA - November 10, 2005 FASB first announced they were embarking on an overhaul of pension accounting. ED - March 31, 2006 Exposure Draft is released. FP - September 30, 2006 Final pronouncement is released.

Table 12: This table examines the determinants of the market reaction to the issuance of SFAS No. 158. The table reports estimated coefficients and p-values (based on Schipper and Thompson 1983) from a cross-sectional analysis of event parameters, using a market model and two-day (-1,0) event windows for the period 1/1/2005 through 12/31/2006, for event dates related to the issuance of SFAS No. 158.

		OA	ED	FP
	Expected Sign	Coefficients p-value	Coefficients p-value	Coefficients p-value
Intercept		0.0155 0.099	-0.0089 0.343	-0.0109 0.245
PENADJ	+	-0.0270 0.255	-0.0306 0.198	-0.0096 0.686
OPEBADJ	+	**0.1354** **0.022**	**0.1537** **0.009**	-0.0109 0.854
DUR	-	0.0006 0.924	0.0056 0.344	-0.0012 0.834
MIX	+/-	-0.0010 0.898	0.0096 0.227	0.0019 0.806
LEV	-	-0.0031 0.426	-0.0012 0.752	-0.0006 0.871
INC	+	**-0.0449** **0.049**	-0.0095 0.674	0.0127 0.576
SIZE		-0.0006 0.371	-0.0003 0.657	0.0008 0.219
FSDUM	-	**-0.0038** **0.022**	-0.0019 0.251	0.0013 0.446

Bold indicates significance at the .05 level or higher.

PENADJ is the pension SFAS No. 158 adjustment standardized by assets, OPEBADJ is the OPEB SFAS No. 158 adjustment standardized by assets, DUR is the (relative) duration of the firm's pension plans, MIX is the percentage of pension assets invested in equities, LEV is the firm's leverage ratio, INC is the firm's ordinary income standardized by total assets – in effect a measure of ROA, SIZE the (log of the) firm's assets, FSDUM is a dummy set to 1 for firms with underfunded pension plans.
OA - November 10, 2005 FASB first announced they were embarking on an overhaul of pension accounting.
ED - March 31, 2006 Exposure Draft is released.
FP - September 30, 2006 Final pronouncement is released.

Appendix 1: Calculation of SFAS No. 158 Adjustment

ADJUSTMENT FOR PENSION PLAN (Pre SFAS No. 158)		
Description	Variable	Compustat Pension Dataset Variable
Pension Plan Assets		PPLAO
- Projected Benefit Obligation		PBPRO
= Funded Status	FS =PPLAO-PBPRO	
-Balance Sheet Net Asset/Liability*		PCPPAO
= Pension Adjustment	PENADJ= FS - PCPPAO	

* The Balance Sheet Asset/Liability is defined by Compustat as the asset/liability that would be reported in the absence of the minimum liability adjustment (even if the firm took that adjustment).

The above holds true if the firm was not required to take a "Minimum Liability Adjustment" (MLA). If it was required to, then part of the adjustment (Compustat Pension Dataset Variable – PBACOMIN) is taken by the MLA. In that case,

$$PENADJ = (FS - PCPPAO) + PBACOMIN$$

[The adjustment is an addition, since Compustat records PBACOMIN as a positive number – the 'debit' to AOCI]

ADJUSTMENT FOR OPEB PLANS (Pre SFAS No. 158)		
Description	Variable	Compustat Pension Dataset Variable
OPEB Plan Assets		PRAA
-APBO		PRBO
= OPEB Funded Status	PRFS =PRAA-PRBO	
-Balance Sheet Net Asset/Liability		PRBA
= OPEB Adjustment	OPEBADJ= PRFS - PRBA	

Post SFAS No. 158, the balance sheet asset/liability is equivalent to the funded status. The adjustment is calculated 'as if' the FASB had not issued the rule change and is equivalent to the sum of the unrecognized gains and losses and prior service cost as below.

ADJUSTMENT FOR Pension and OPEB PLANS (Post SFAS No. 158)		
Description	Pension Dataset Variable	OPEB Dataset Variable
Unrecognized gains and losses	POAJO	PROADJ
Unrecognized prior service cost	PCUPSO	PRPSC
Total Adjustment		

Appendix 2 - Sample Comment Letter from XEROX (p. 1 of 7)

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LETTER OF COMMENT NO. 225

Gary R. Kabureck
Vice President and Chief Accounting Officer

June 6, 2006

~sent via Email to: director@fasb.org~

Technical Director- File Reference No. 1025-300
Financial Accounting Standards Board
401 Merritt 7
P.O. Box 5116
Norwalk, Connecticut 06856-5116

Subject: File Reference No. 1025-300
Proposed Statement of Financial Accounting Standards, "Employers' Accounting for Defined Benefit Pension and Other Postretirement Plans"

Dear Sir:

The purpose of this letter is to express the views of Xerox Corporation ("Xerox") in response to the Exposure Draft (ED) dated March 31, 2006 on Employer' Accounting for Defined Benefit Pension and Other Postretirement Plans. The issue is of material importance to us; Xerox and its subsidiaries currently maintain over 30 defined benefit plans in 17 countries around the world with approximately $10 billion in plan assets. Our plans include classic defined benefit arrangements, cash balance floor offset plans, termination indemnity plans, participating insurance contract/annuity programs, etc. With respect to funded status, we have both over and under-funded plans as well as several non-funded arrangements. Lastly, we have a large domestic retiree health plan that is unfunded and represents approximately $2 billion of recognized liabilities. Accordingly, any changes to the relevant accounting standards are of material importance to us and we have thoroughly studied the ED.

We concur that in the current environment it is important for the FASB to address this subject and we understand the rationale for separating the pension project into phases. We fully support the FASB's efforts to improve the accounting, reporting and disclosure of retiree benefit arrangements. With respect to the ED's proposal, there are a number of changes we believe are very important to be incorporated into the final standard. Our most important concern is the proposal to measure and recognize a balance sheet asset or obligation, which includes future salary and health care cost factors. We strongly believe the balance sheet should only reflect benefits that have accumulated and/or vested as of balance sheet date i.e. an ABO based measure. Secondly, we strongly encourage the Board to retain

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the Statement 87 and 106 option to measure plan assets and liabilities within 90 days of year end. When one considers that the projected obligations are often for events decades into the future and when combined with how difficult and time consuming the actuarial and company review processes are, the 90 day option is a practical approach worth keeping. Lastly, and similar to the approach in Statement 123(R), we recommend the FASB permit a variety of transition alternatives. Retroactive application will be difficult for many companies with little commensurate benefit. These recommendations are expanded upon below.

While we support the Board's efforts to improve existing reporting for defined benefit pension and other post-retirement plans to provide useful financial information to investors, retirees and other users of financial statements and working within the scope of the ED, we have several concerns about the proposed changes. In the interest of brevity our comments are generally expressed in a pension plan context (which we believe is the larger issue) although they will normally be equally applicable to retiree health plans as well. For example both pension plans and retiree health plans incorporate future cost increases in their expense models – pensions reflect these as salary progression – the PBO - and retiree health plans as future health care costs trends – the APBO. Our comments on the ED follow.

Balance Sheet Recognition of Funded/Unfunded Plan Status

We believe the use to the Projected Benefit Obligation ("PBO") to measure the amount of over or under-funding for purposes of balance sheet recognition is inconsistent with the accounting framework for recognition of liabilities and would not lead to useful financial information. We strongly recommend the final Standard be revised to require reference to the accumulated benefit obligation (ABO) for balance sheet recognition purposes for the following reasons:

- We believe the market value at the balance sheet date of the pension liability is the ABO. The ABO is more consistent with the common understanding of balance sheet liabilities and FASB Concepts Statement 6. The ABO can be, and frequently is, settled in the market place through the purchase of annuity contracts from insurance companies and therefore is a more reliable and useful measure of a company's pension liability at the balance sheet date. While it may be theoretically possible to settle a PBO based pension liability to our knowledge this at most is a very rare business event and does not warrant further consideration.

- The ABO is consistent with ERISA funding guidelines. The proposed rules could result in permanent material reductions in companies' equity since it unlikely that companies would adopt PBO based funding practices even if permitted by ERISA or income tax codes. Companies that seek to maintain current equity ratios could be left with no alternatives other than freezing or curtailing their pension plans which would be counter to public policy and counter to the background reasons for this project.

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- The PBO is inconsistent with the Concepts Statement No. 6 definition of a liability as an obligation resulting from "past transactions or events." The PBO was essentially designed as a matching and smoothing mechanism for net periodic pension cost and was never intended to be a measure of the balance sheet pension liability. The PBO considers future events such as salary increases and years of service which have not been earned by plan participants, and are generally provided in exchange for future service. Using the PBO distorts the true position of the unfunded/funded plan status since it inflates the liability for future increases without a corresponding assumption for the assets.

- FASB Concept Statement 6 describes the characteristics of a liability as an obligation that an entity has little or no discretion to avoid for an event that has already happened. Companies are not legally obligated to continue benefit plans indefinitely and may unilaterally terminate and/or freeze most plans. Future compensation levels and whether the plan benefits will be based on future compensation is up to the discretion of the company and may be changed for any future period. Future compensation to employees is not recorded as a liability on the balance sheet. The PBO, which includes these future compensation increases, includes amounts that are not true liabilities of the company, since neither the employee nor the employer has performed under the employment contract. Furthermore, based on our experience when settling individual employee pension obligations, there is no expectation by an employee of a settlement based on anything but the equivalent of the ABO.

- Under the proposed rules, initially companies would record overstated pension liabilities or undervalued pension assets at the balance sheet date as measured by the PBO, with sizable adjustments (today generally reductions) to equity. Subsequently, the companies may potentially record sizable gains and increases to equity as a result of freezing or canceling the accumulation and vesting of additional defined benefits. This would suggest that there has been a change in value as of the balance sheet date whereas in fact that would not be the case. This highlights the inconsistency of using the PBO as a measure of the liability without an equal and offsetting asset (for the benefit of future years of service) to match the PBO liability, as well as the inherent shortcomings of using a PBO measure for the pension liability.

- The proposed rules could dramatically impact companies' decisions to continue to provide these plans to their employees. Since the current equity ratios levels cannot be protected by additional funding, companies may be forced to curtain or terminate their plans. This is clearly contrary to public policy and in our opinion, the proposed rules do not appear to achieve the desired level of neutrality.

In summary, we strongly disagree with reference to the PBO for purposes of measuring a balance sheet asset or liability; we believe that it is the ABO which more appropriately reflects the market value of the benefit obligation at a point in time.

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Costs of Implementing the Proposed Statement's Requirement to Recognize a Plan's Overfunded or Underfunded Status in the Employer's Statement of Financial Position

The FASB has requested input on several implementation issues particularly with respect to cost of compliance and technical implementation challenges. Our responses follow – listed in order of the Issues identified in the ED. We have only commented on those Issues that relate to our operations.

Issue 1: The ED requests input to the postulate that implementation costs would not be significant. We disagree with this assumption and believe the costs to implementation of this proposed Statement would be significant for the following reasons:

Direct implementation costs of the ED include:

- The proposed changes would, for many companies, cause significant rebalancing of work into the period after fiscal year end. This concern is expanded upon later.
- While no new data may be required, the proposed Statement increases the complexity of the calculations and movements within Accumulated Other Comprehensive Income (Loss).
- Additional costs will be incurred for actuarial fees relating to the changes to fiscal year end measurement, for financial systems re-programming to recapture the required information to meet the new requirements, and for internal controls testing.

Indirect implementation costs include the effects on companies capitalization and benefit plans including:

- Companies may be affected adversely by potential negative ramifications relating to their debt covenants and other financial agreements. As a result of potential negative impacts to equity, some companies may experience higher costs of capital and/or restrict their ability to borrow for working capital needs.
- We suspect the ED will provide another motivation to financial statement preparers to reduce, curtail or terminate the benefit plan arrangements. Companies may lose the ability to retain long-term employees, resulting in the loss of valuable intellectual capital and the ability to compete on a global level. We base this comment on a recent AICPA news release dated April 26, 2006 that stated that nearly 30% of over 3,100 members polled said the pressures to compete in the marketplace outweighed the pressures to provide retirement benefits. 54% indicated that the erosion of these benefits would hurt recruiting and retention efforts.

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- After initial application, volatility in capital markets may erode investor confidence as asset valuation or discount rate changes drive additional instability to companies' balance sheets and equity ratios.

The Employer's Measurement Date

Issue 2: We believe the implementation issues are significantly different from other assets and liabilities that are recognized as of the date of the statement of financial position for the following reasons:

- The higher level of complexity of the actuarial valuation work related to defined benefit obligations.

- For global companies that sponsor multiple plans, the efforts required to coordinate and review the work of experts at fiscal year end creates an unnecessary burden on companies' employees and their financial control environments and in an increasingly demanding financial reporting environment.

- The current provision which allows companies to measure their plans' assets and liabilities up to three months earlier than the fiscal year end provides an orderly mechanism to gather and understand complex information provided by experts. The benefits of this significantly outweigh the additional requirements to reconcile the related information necessary for year end disclosure purposes. We point out that in actuarial calculations, events and cash flows 30 to 40 years into the future is what is being projected. This being the case whether or not the measurement date is within 90 days or not from year end would not seem to make much of a difference in terms of the precision of the reported values.

- The SEC and private investors have increased demands for financial information on a more timely basis. The current provision for an early measurement date provides critical time to companies to gather and evaluate complex information required for financial reporting disclosure. As a matter of convenience and workload balancing, many companies, for the almost 20 years Statement 87 has been around, have availed themselves of the option to close the pension accounts, particularly for their foreign plans, using a measurement date of September 30th – the 90 day option for calendar year end companies. This as worked well in practice because the complexity of the subject matter requires considerably more time to process than most subjects. Requiring the measurement date to be as of a company's fiscal year end will create a severe strain in appropriately dealing with this subject. Starting in 2007, Form 10K's will need to be filed 60 days after year end and when allowing for setback time to review final statements with audit and disclosure committees, Edgarize, audit, etc effectively means statements will need to be finalized by early February for calendar year end companies. This represents a severely constrained workload and companies look for every opportunity to finalize work earlier – not later. The option of finalizing pension accounts

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before the fiscal year end is a great benefit to companies and we strongly disagree with the proposal to remove the option.

Recognition of the Overfunded or Underfunded Status

Issue 3(a): We do not believe that retrospective application will result in useful financial information and may confuse investors and other readers of companies' financial statements for the following reasons:

- First, we believe companies should be afforded the option of restating for the new Standard or otherwise should they either be unable or unwilling to retroactively apply the standard they would adopt the new requirements prospectively. We believe the most relevant impact of the ED would be on current shareholder equity balances and while some comparability would occur by restating earlier amounts, this would not be all that important to the users of financial statements. Furthermore, given the elaborate machinations that would be involved in revising previous pension liabilities, accumulated other comprehensive income (loss) and other accounts and disclosures, we believe the restatement task would be both difficult and costly with little commensurate benefit. We recommend that a variety of transition options should be made available to financial statement preparers similar to the approach the FASB used in Statement 123R.

- The proposed Statement when applied retrospectively may cause many companies to fail to meet the compliance requirements of their debt covenants and other financial agreements for years when they were actually in compliance under the accounting rules at the time.

- The proposed Statement's retrospective application could erode investor confidence in previously published results, causing the appearance of a change in the economic health of many companies' past results.

Measurement Date

Issue 4: We do not believe that the current provisions allowing for the measurement date three months prior to fiscal year end create significant additional complexity nor reduce understandability. We also believe that the proposed Statement introduces unnecessary complexity we recommend that the Board consider the following changes:

- Keep the choice of measurement date.

- Require any settlement or curtailment gains occurring in the period between the fiscal year end and the measurement date prior to that date to be included in net periodic benefit cost for the fiscal year.

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- Allow companies the election to move all plans to a common measurement date up to three months prior to fiscal year end, recording any adjustments through Accumulated Other Comprehensive Income (Loss).

- While we do not believe it is preferable, if the fiscal year end measurement dates are mandated, provide for companies to record gains/losses related to measurement date transition through Accumulated Other Comprehensive Income (Loss) to simplify the accounting.

Other Matters – Effective Date

If the final rules are not issued before September 15th, the Board is encouraged to delay the effective date until the following year to provide adequate time for companies to fund to the appropriate levels should they be inclined to do so. Many companies using early measurement dates may otherwise be confronted unfairly with funding decisions without the benefit of knowing the financial reporting impacts of these decisions. Further, large multinationals such as ourselves will typically have many benefit plans around the world, with varying degrees of local knowledge of U.S. GAAP. It is challenging enough to properly close foreign books of account today; introducing the ED's transition rules late in the year is unfair and places an additional burden that is not justified by the benefits.

* * * * *

We appreciate this opportunity to present our views to the Board on this very important matter, and are available to discuss any of our comments with you at your convenience

Sincerely,

Gary R. Kabureck
Vice President and Chief Accounting Officer

c: L. A. Zimmerman
Senior Vice President
and Chief Financial Officer
Xerox Corporation

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