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Corporate lobbying and market reaction to proposed accounting rules: The case of postretirement benefits other than pensions

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CORPORATE LOBBYING AND MARKET REACTION TO PROPOSED ACCOUNTING RULES: THE CASE OF POSTRETIREMENT BENEFITS OTHER THAN PENSIONS

by

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A dissertation submitted to the Graduate Faculty in Business in partial fulfillment of the requirements for the degree of Doctor of Philosophy, The City University of New York.

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Dissertation Approval

This manuscript has been read and accepted for the Graduate Faculty in Business in satisfaction of the dissertation requirement for the degree of Doctor of Philosophy.

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Abstract

CORPORATE LOBBYING AND MARKET REACTION TO PROPOSED ACCOUNTING RULES: THE CASE OF POSTRETIREMENT BENEFITS OTHER THAN PENSIONS

by

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Adviser: Professor Victor Pastena

This study investigates what determines firms' lobbying positions on the proposed accounting standard for postretirement benefits other than pensions. It also examines whether the market reacts to events indicating an accounting change for these retiree benefits.

Corporate lobbying positions are hypothesized to be determined by the future income effect of the new accounting standard, firms' labor power, financial slack, management wealth from stock ownership, debt contracts, and market structure. Empirical results consistently support such hypotheses as the future income effect, management wealth, and market structure.

For the market study, two different portfolio groups are considered depending on the existence of the benefit plans. After the stock performances of each group are examined during eight individual event periods, the determinants of the market reaction, if any, are tested based on the hypotheses of future income effect, labor productivity, industry, financial slack,

and debt contracts. Empirical tests show that firms with the benefit plans experienced significantly negative abnormal returns for most events while firms without the plans did not. Few hypotheses could explain the negative abnormal returns on a consistent basis. However, the future income effect is the best determinant of the market reaction.

Finally, the association between firms' lobbying positions and the market reaction is examined to determine whether the wealth transfer due to a proposed accounting change can predict the firms' lobbying decision. It is found that the market reaction is rarely associated with a firm's lobbying decision.

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Chapter 1. Introduction

The purpose of this study is to investigate both management lobbying decisions on the proposed accounting for postretirement benefits other than pensions (nonpension retiree benefits or retiree benefits, hereafter) and the stock market's reaction to events leading to an accounting change for retiree benefits. The nonpension component of the employee's postretirement benefits, principally health care benefits, has recently received much attention from employers, employees, policy makers, and the government because the overall costs of these nonpension benefit programs have increased significantly due to rapid health care cost inflation, decreasing Medicare reimbursements, the continuing trend toward early retirement, longer life expectancy and an aging work force.

Compensation in the form of health and life insurance was initially provided only for active employees, and the costs and obligations of the benefits for retirees were not material compared to similar costs for active employees. Many retiree benefit plans were formulated in the 1960's after the passage of Medicare. Employers generally agreed to pay the cost of retirees' health care that was not covered by Medicare. At that time, these plans were not very costly. However, the total costs of these plans changed drastically in the last two decades. At present, most companies simply report the expense they pay for current retirees each year. Actually, very few companies either set aside funds in advance for the payment of

benefits or recognize liabilities for future benefit payments on their balance sheets.

Concerns about whether and how retiree health benefit cost should be reflected in company financial statements also have arisen in the accounting profession. Employers' accounting for postretirement benefits other than pensions was considered by the Financial Accounting Standards Board (FASB) as part of the project on employer's accounting for pensions from 1981 to 1983. Two Discussion Memoranda and a Preliminary Views document were issued during that period.[1] After public hearings and research, the FASB established a separate agenda project for nonpension postretirement benefits and suggested the use of accrual basis of accounting for the costs of these benefits. Since very few companies were disclosing information about those costs in their financial statements despite its significance, the Board issued Statement No. 81, "Disclosure of Postretirement Health Care and Life Insurance Benefits." According to the Board, this was viewed as an interim step pending completion of the Board's study on the measurement and recognition issues. After further study, the FASB issued an Exposure Draft (hereafter, ED) on February 14, 1989, proposing that employers accrue the cost of retiree health care benefits and of all other postretirement benefits other than pensions during the employees' active service, rather than recording costs as

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[1] See the FASB's Discussion Memorandum (1981), Preliminary Views(1982), and Discussion Memorandum (1983).

benefits are paid.

If the standards are issued as proposed, the FASB plans to require implementation of most provisions in 1992. Starting that year, companies will annually have to charge to their earnings an amount that is composed of two major parts. One is the present value of expected future benefits that is allocated to employees in that year. The present value figure will tend to increase every year as employees move closer to retirement. The second part is the amortization of those benefits earned in the years before the new rules take effect. Also starting in 1997, companies record in the balance sheet, as a minimum, a liability for postretirement benefits equal to the present value of the obligation expected to be paid to retirees and actives fully eligible, net of the fair value of plan assets, if any.[2]

Therefore, if the FASB finalizes these rules, employers will be confronted with a lot of additional expenses and liabilities for the benefit programs they promised. It is widely known that the Board's final decisions probably will have a greater effect on financial statements than any other FASB pronouncement.[3] For example, the House of Representative's Select Committee on Aging has been provided estimates indicating that the liability for future retiree health benefits for the

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[2] However, the Board recently concluded not to require recognition of a minimum liability for postretirement benefits. (See appendix A, No. 5.)

[3] The FASB's vote on accrual accounting was unanimous, and it is widely believed that the odds on retaining current accounting practice are almost zero.

Fortune 500 companies is approximately 150% of their total assets.[4] More recently, according to the field test of the FASB proposal on Retiree Health Benefits, conducted by the actuarial and benefits group of Coopers & Lybrand, the change to accrual accounting would increase the expense of retiree benefits from three to six times for a mature company, and 30 times for a young company.[5]

In addition to those financial statement effects, there are serious future cash flow implications of the proposed accounting change. Employers will need to gather substantial information about the demographics of current and future retirees and their dependents, which will involve additional information processing costs. Also, employers will need to engage actuaries to perform annual plan valuations for the current nonpension retiree benefit plans, which will result in additional service fees.

Moreover, the cash flow implications become more serious if companies start setting funds aside to cover their liabilities. Currently most companies do not prefund retiree health benefits, generally because there are few tax incentives to do so. However, many companies are interested in advance funding that liability because the funding will reduce both annual expenses through its expected return on plan assets established and the net recorded liability on the balance sheet, if it is required as proposed in the ED. Also, organizations representing workers

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[4] See Nelson (pp. 53, 1987).

[5] See Dankner et. al. (pp. 94-98, 1989).

and retirees urge the funding because it affects the security of the benefit promise.

Many companies, particularly those with an older work force and many retirees, are concerned that the FASB-proposed disclosure will adversely affect their short-run financial position as portrayed in their financial statements. These mature companies may be required to report initially much higher liabilities than firms of the same size and with similar retiree health benefit plans but younger work forces and fewer retirees.

The contribution of this study is to enhance the understanding of the firms' lobbying decision to the FASB's ED and the market's reaction to events leading to new accounting standard for retiree benefits. Another contribution is to investigate whether a firm's lobbying behavior is caused by the market reaction, which no previous studies have tested.

Therefore, the following research questions are addressed in this paper;

- What determines the firms' lobbying decision?
- Does the market react to the accounting change for retiree benefits?
- What are the possible determinants for the market reaction, if any?
- Is the lobbying position caused by the market reaction?

The chapters of this study are organized as follows: chapter 2 addresses the characteristics of retiree benefits and their accounting issues as discussed in the Board's ED. Some

criticisms of the Board's proposal are also presented. Chapter 3 discusses the consequences of the proposed mandatory accounting change by observing the employers' reactions and citing the examples of the potential impact on the financial statements. Corporate lobbying behaviors are investigated in chapter 4 with an empirical test based on the comment letters sent to the FASB. Chapter 5 deals with the market reaction to the events leading to the proposed accounting change for retiree benefits. In addition, the possible determinants of the stock price movement are investigated. Chapters 4 and 5 include a review of previous relevant studies, hypotheses to be tested, a description of research methodology used, and empirical results. Chapter 6 provides the association between the previous market reaction and firms' lobbying decision. Conclusions and future research are mentioned in chapter 7.

Chapter 2. Characteristics and Accounting for Retiree Benefits

2.1. Characteristics of retiree benefits

The types of retiree benefits vary regarding the level of benefits, the beneficiaries, and the length of coverage. For example, a large company in the smokestack industry with a strong union may have a very comprehensive plan compared with a company in a less heavily unionized industry. To obtain definitive data on retiree benefits, Coopers & Lybrand and Hewitt Associates surveyed certain firms about the nature, prevalence and accounting treatment of other postemployment benefits.[6] The survey revealed the following facts:

- Medical and health care programs are by far the most significant benefit in terms of financial obligation.
- These programs provide diverse coverage and benefit levels.
- The benefits are paid and accounted for on a pay-as-you-go basis.
- The programs are perceived as being maintained at the employer's discretion.

Costs vary widely from employer to employer ranging from 0.1% to 5.2% of the survey respondents' active payroll. However, relatively few employers indicated that they had measured their obligations for the benefit plan or evaluated the impact of any accrual accounting requirements on their financial statements.

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[6] Three separate surveys were used as follows: Financial Executive Research Foundation's "Prevalence Overview" Survey and "Financial Information" Survey and Hewitt Associates' SpecBook Survey.

The prevalence of retiree health plans can be also seen from the U.S. governmental studies. In 1986, the U.S. Department of Labor found that approximately 76 percent of full-time employers of medium and large companies participated in health plans under which they could be eligible for retiree health benefits after retirement.[7] For 1988, the U.S. General Accounting Office estimated that employer-sponsored retiree health plans covered about seven million retirees, at a cost to employers of about $9 billion.[8]

There are different viewpoints as to whether retiree benefits are a form of deferred compensation or a gratuity given. Because pension accounting often serves as a reference point in considering nonpension accounting issues, it would be useful to compare the two types of plans in understanding how to account for the employer's obligation for retiree benefits and what information will have to be disclosed. Table 1 provides a comparison of differences between pension benefits and retiree health care benefits.

First, there is no limit on healthcare benefits. No matter how serious the illness or how long it lasts, the benefits will continue to flow, and coverage may also apply to the spouse and other dependents. On the other hand, pension benefits are well

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[7] See U.S. Department of Labor, Bureau of Labor Statistics, Employee Benefits in Medium and Large Firms, 1986, June 1987.

[8] See U.S. General Accounting Office, "Employee Benefits: Company Actions to Limit Retiree Health Costs," GAO/HRD-89-31BR.

Table 1. Comparison between Pensions and Postretirement Healthcare Benefits

Characteristic	Healthcare	Pensions
Beneficiary	Retiree, spouse, other dependents	Retiree (some residual benefit to surviving spouse)
Benefit	Generally uncapped Not tied to service year Payment-in-kind	Well-defined by a definite formula Tied to service year Monetary payment
Payable	As used	Monthly
Predictability	Difficult to predict Utilization	Variables are reasonably estimable
Variety of cost	Varies geographically and fluctuates over time	Less variable
Funding	Generally not funded	Generally funded
Vesting	No vesting	Vested benefits with vesting provision
Termination	Not subject to regulation	Regulated by ERISA
Current accouting	Not specified but usually cash basis	Accrual basis

defined by a definite formula, and they will be paid to retirees and surviving spouses for some residual benefit. Second, an employer's promise in a typical retiree health plan is made in terms of benefits or services to provide health coverage to retirees regardless of cost (payment-in-kind). Thus, the actual cost of benefits generally will not be known until an illness occurs and claims are filed in a retiree health plan. In contrast, an employer's promise in a typical pension plan is made in terms of dollars to provide a specified amount or level of benefits to retirees (monetary payment). Third, the level of utilization of healthcare benefits is hard to predict while variables are reasonably estimable for pension benefits. In addition, costs can vary greatly by individual, and one individual may incur very different costs from one year to the next. Thus, the nature of the retiree health benefit makes measurement of the obligation much more difficult. Fourth, pension benefits accrue (earned by the participant) and vest in accordance with ERISA requirements while these requirements do not apply to retiree health benefits. Fifth, pension plans are required to be funded under ERISA; however, relatively few employers advance fund retiree health benefits. Finally, Pension Benefit Guaranty Corporation regulate termination of pension benefits only, and healthcare benefits are not subject to regulation except the case of bankruptcy.[9] Consequently,

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[9] See section 1114 (e)(1) in Retiree Benefits Bankruptcy Protection Act of 1988.

arguments for considering pensions as deferred compensation may not strictly apply to nonpension benefits including healthcare benefits.

A number of people believe that the obligation for promised benefits does not qualify as a liability for accounting purposes, and that accrual accounting is not conceptually appropriate. The characteristics of the plan cited to support this view are that benefits are not vested or earned during an employee's years of service, and that plans may be terminated.

Despite the arguments, the FASB concluded that post-retirement benefits are paid after retirement in exchange for services that an employee provides currently and therefore, should be accrued while he/she works for the company. The Statement of Financial Accounting Concepts No. 6, defines liabilities as "probable future sacrifices of economic benefits arising from present obligations of a particular entity to transfer assets or provide services ...," and in a footnote, the FASB explains that the term "obligations" used in the statement is broader than "legal obligations." It refers to duties imposed legally or socially, " ... that one is bound to do by contract, promise, moral responsibility, and so forth." Also, paragraph 39 of the statement describes that some obligations are imposed on entities by the government or courts.

Recent court cases have tended to decide that employers may not unilaterally reduce or discontinue benefits already being

provided to retirees.[10] As a result of court decisions, the obligation question is being gradually answered. In a survey conducted in 1986 by Louis Harris and Associates, virtually none of the 500 responding benefit managers anticipate canceling an existing retiree health plan although 40 percent of the respondents believe that their company has the right to do so. Fear of employee or union opposition was the most often expressed reason for the company's failure to take steps to control retiree health care costs.[11]

In addition, recent legislation has placed restrictions on changes in retiree health plans once a company declares bankruptcy. In July 1986, one of the largest steel companies, the LTV Corporation, filed for reorganization under U.S. bankruptcy laws. LTV took the position that these laws allowed the company to terminate retiree health benefits to over 78,000 retirees. Almost immediately following LTV's filing, the Congress enacted temporary legislation that required LTV to continue to provide health benefits to its retirees. To replace the temporary legislation, the Congress enacted the Retiree Benefits Bankruptcy Protection Act of 1988, which became law in June of that year.[12] According to section 1114 (e)(1) in the

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[10] See Werner and Kostolansky (1987). Bethlehem Steel Corp. and White Farm Equipment Co. are the examples of court decisions enforcing the employer's obligation to provide group life and health insurance to retired nonunion employees.

[11] See Ryan and Curto (1987).

[12] See the study by U.S. General Accounting Office (June 1989).

act, companies filing for chapter 11 bankruptcy shall not modify any retiree benefits, unless the bankruptcy court orders such modifications or the trustee in bankruptcy and the authorized representative of retirees agree to such modification. Therefore, the benefits promised at least to current retirees should be regarded as a legal liability that the company should recognize in its financial statements. After the public hearings in 1989, the FASB still concluded that accrual accounting is appropriate for retiree benefits, reaffirming the view expressed in the ED.[13]

2.2. Accounting issues

Even after consenting to the liability concept of the benefits, there are many conflicting issues involved in the measurement and financial statement recognition of the employers' obligation to provide benefits. These conflicting issues cannot be resolved without the opinion of an authoritative body. The key features of accounting for retiree benefits as proposed in the ED are summarized and discussed in relation to these criticisms in the following sections. Also, the discussion is extended to any changes in the Board's position of specific issues after the public hearings, which were neld in October and November 1989.

2.2.1. Measurement issues

An analysis of measurement issues must address three key

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[13] See the FASB's minutes of the November 29, 1989 Board meeting, reproduced in appendix A.

areas, such as projecting plan costs or benefits, selecting actuarial assumptions, and calculating present value of future costs or benefits.[14]

Initially, two different approaches were considered. The first is a measurement by projecting promised plan coverage (benefit approaches), and the second, projecting plan costs (cost approaches). Under benefit approaches, future expected benefits are allocated to service periods; i.e., the present value of the benefits allocated to each period represents the cost attributed to that period.

Under cost approaches, however, the expected cost of providing benefits or benefit coverage is allocated in a systematic and rational manner, such as by allocating a level amount or percentage of cost to each period. If that level amount or percentage is funded each year at the assumed interest rate, and absent changes in the plan, the cost recognized will be level over an employee's service life. But a disadvantage of cost approaches is that cost recognition patterns implicitly allocate greater future benefits to earlier years of service while it seems reasonable to expect that costs would increase

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[14] The undiscounted approach is not discussed because discounting is generally viewed as a better reflection of the economic consequences when the obligation is to provide benefits in the future, not currently. Also, the Board concluded that recording an obligation at its ultimate cost without discounting is overly conservative and does not provide the information most relevant for decision making. (See paragraph 188 of the ED.)

with the passage of time as retirement draws near.[15] The Board explored both approaches, but ultimately concluded that a cost approach was not conceptually superior to a benefit approach under which pensions are accounted for in Statement No. 87.[16]

Even under benefits approaches, there are two alternatives considered, such as measuring vested benefit obligation (benefits/requisite-years-of-service approach) versus expected benefit obligation (benefits/years-of-service approach). The former is equal to the present value of the future benefits for retirees from the eligibility date to the death or no commitment (i.e., requisite service period). The FASB concluded in the ED that the primary measure of the obligation at each balance sheet date is the expected postretirement benefit obligation (EPBO) which is the actuarial present value of benefits expected to be paid during the retirement period (i.e., from employee's expected retirement date to his/her death or the end of any commitment to a surviving spouse or dependents).[17] The reasonings behind the conclusion are that it is improbable that all employees would opt to retire at the eligibility date, and that it is consistent with the provisions of Statement 87, particularly since the Board views the promise for retiree

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[15] See Scott et al. (pp. 32, 1988). Also, see paragraphs 176-179 of the ED.

[16] See paragraphs 192-195 of the ED.

[17] See paragraph 148 of the ED.

benefits to be similar to the promise for pension benefits. After the public hearings in late 1989, the Board reaffirmed its conclusion in the Board meeting.[18]

Many of the actuarial assumptions used to measure retiree benefits are similar to those used for pension benefits, such as assumptions regarding life expectancy, retirement date, employee turnover, and discount rate.[19] However, two key economic assumptions- medical cost trend rate and discount rate- create measurement problems in retiree benefits more difficult than in pension benefits. In addition, there are also questions about the portion of cost to be reimbursed by Medicare and marital and dependency status during retirement. Major criticism is focused on the estimate of medical cost trend rate. According to Concepts Statement No. 5, measurability requires that the elements of financial statements have a relevant attribute that can be quantified in monetary units with a sufficient degree of reliability. To be reliable, information about the obligation should be sufficiently faithful in its representation of the underlying obligation and free of error and bias. These qualitative characteristics make accounting information useful

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[18] See the FASB's minutes of the April 4, 1990 Board meeting, reproduced in appendix A.

[19] The Board concluded in the ED that each assumption should reflect the best estimate of the plan's future experience, solely with respect to that individual assumptions, taking into consideration the current plan participants (i.e., explicit/ closed group approach). It was reaffirmed by the Board after the public hearings. (See the FASB's minutes of December 13, 1989 Board meeting, reproduced in appendix A.)

to investors, creditors, and other users.

Most respondents in comment letters write that the measurement of retiree medical benefit obligation may have a larger margin of error than some other estimates used in financial reporting. However, the Board believes that reasonable estimates of EPBO can be made and expects that developments in actuarial science and familiarity with estimates of the obligation will lead to better estimates and higher acceptance. Still, estimating the EPBO with a certain health care inflation rate would be subject to variability because of the difficulty involved in predicting future medical costs. Thus, many suggest an alternative computation which does not require unreliable projections or at least projects only general price level inflation. The Board currently holds the position that an employer's EPBO should be measured by projecting future costs based on an employer's best estimate of its health care cost trend rate, reaffirming the view expressed in the ED.[20]

There were many alternatives considered for the selection of the discount rate in measuring the present value of the EPBO and the interest cost component in net periodic postretirement benefit expense. Because most of the benefit plans are unfunded, the changes in discount rate will have a more significant effect for retiree benefits than for pension benefits. While the selection of assumed discount rates should

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[20] See the FASB's minutes of the April 4, 1990 Board meeting, reproduced in appendix A.

be based on discount rates inherent in the current prices for settling the related obligation as required for pension obligation, the Board, in the ED, requires, employers to determine the rates on the basis of the rates of return on high-quality, fixed-income investments currently available and expected to be available for the duration of the benefit promise.[21] This is reaffirmed in the Board meetings after the public hearings.[22] It seems that in the comment letters to the ED, there were few arguments about selecting the discount rate.

2.2.2. Recognition issues (Attribution process)

Once the actuarial present value of plan benefits (i.e., EPBO) has been determined through the measurement process, each employer must use a specified actuarial method to compute the annual retiree benefits expense and accumulated postretirement benefit obligation (APBO), the portion of the EPBO attributed to service rendered prior to the measurement date. Attribution is the process of assigning the cost of retiree benefits to periods of employee service. Therefore, the primary question is what is the appropriate attribution period.

There are several accrual methods for retiree benefits as follows:

- Accrual at retirement (i.e., Terminal funding): No benefits are accrued until the date of retirement. If an employee

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[21] See paragraphs 24 and 159 of the ED.

[22] See the FASB's minutes of the February 14, 1990 Board meeting, reproduced in appendix A.

terminates prior to retirement, the accrued benefit is zero.

- Accrual at eligibility for retirement: The benefits are accrued in full at the earliest date of eligibility for retirement with full benefit coverage.
- Ratable accrual from date of hire to age 65: Total benefit is accrued ratably over the period from the employee's hire date to age 65.
- Ratable accrual from the date of hire to the earliest eligibility for retirement: Benefits begin accruing at the date of hire but are fully accrued at the earliest eligibility date.
- Ratable accrual from the date of hire to the expected retirement date: Total benefit is accrued ratably over the period from the employee's hire date to expected retirement date.
- Ratable accrual over fixed period of service: Benefits are accrued over a fixed period, such as 25 years. An employee that retires or terminates with less than the required period of service receives a proportionate amount of the benefit.

Under the FASB's proposal, the cost would generally be recognized from the date of hire to the date the employee attains eligibility for the maximum benefits earned under the plan (full eligibility date), unless the plan's benefit formula specifies the benefits earned for full specific periods of

service.[23] Thus, the APBO and EPBO are the same on and after the full eligibility date. Others still argue that it is unrealistic to assume all employees will retire when first eligible for retirement. Instead, they believe that attribution over the entire service period (i.e., from the date of hire to the date of expected retirement) better reflects the underlying nature of the employer's promise to provide benefit coverage on retirement.[24]

The FASB believes that if the terms of the plan specify a benefit formula, it would be consistent with pension accounting to follow that formula. However, the Board is aware that few retiree health plans today have such a benefit formula, and it is its objective that costs be spread over the period that the benefit is earned. At the eligibility date an employee has provided all service necessary to retire and receive the maximum benefits earned under the plan. After much deliberation, the Board rejected the concept of spreading costs over the entire service period, believing that the balance sheet liability would be understated at the full eligibility date because an employee could elect to retire with full benefits beginning with the date.[25]

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[23] See paragraph 34 of the ED.

[24] Most of the respondents in their comment letters suggested the attribution over the entire service period.

[25] However, the Board acknowledges that the proposed attribution period may be viewed as being internally inconsistent because recognition and measurement are on different bases. (See paragraph 215 in the ED.)

2.2.3. Liability recognition

A method of liability recognition is needed under any type of accrual accounting. Under the ED, annual expense would be computed first; the accrued liability reported in the balance sheet would then reflect the difference between the cumulative accrued expense and the actual amounts paid.

The FASB proposed in the ED that starting with fiscal years beginning after December 15, 1996, companies record, as a minimum, a liability for postretirement benefits equal to the present value of the expected benefit obligation for retirees and active eligibles, net of the fair value of plan assets, if any.[26] If the accrued liability is less than this minimum liability, an additional liability equal to the difference between the two would be recorded, offset by an intangible asset to the extent there are unrecognized prior service costs. Any additional amount would be charged to stockholder's equity.

However, it is questionable whether a minimum liability should be recognized and when employers should record it if it is required. Some believe that the difficulties in quantifying the obligation justify reporting those amounts in footnote disclosures. Also, the internal inconsistencies are questioned in its determination, compared to pensions accounting. While the minimum liability as defined in SFAS No. 87, "Employer's Accounting for Pensions," includes all active and retired

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[26] The Board, in the ED, proposed a five-year delayed effective date for this provision.

employees, the ED excludes APBO for active employees not yet fully eligible. Recognizing and recording this liability on the balance sheet is a big burden because it is expected that it will be a very large amount for most companies for its unfunded status.

According to a recent Board meeting after the public hearings, the Board changed its position and concluded that it would not require employers to recognize a minimum liability for postretirement benefits, since the unfunded APBO for retirees and other fully eligible plan participants will be discernible from the funded status disclosure in the notes to the financial statement.[27] It suggests that a minimum liability is simply disclosed in the footnote instead of being recorded on the balance sheet.

The decision is very contradictory with the Board's original position that footnote disclosure is not an adequate substitute for recognition. The omission of minimum liability would impair the usefulness and integrity of financial statements because the unfunded accrued postretirement benefit cost itself is not a relevant or reliable representation of an employer's probable future sacrifice. The probable sacrifice can only be determined by considering the current funded status of the plan, i.e., the asset and liability recognized in the balance sheet.

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[27] See the FASB's minutes of the April 11, 1990 Board meeting, reproduced in appendix A.

2.2.4. Transition to accrual accounting

The lack of funding also leads to a large amount of the transition obligation because it is the unfunded present value of the proportionate amount of the expected benefit obligation for retirees and active employees, based on service rendered to the date of transition. In other words, the transition obligation or asset is based on the APBO at the date the statement is adopted, less any plan assets or accrued liabilities(assets) on the company's balance sheet.[28]

The transition obligation would not be immediately recorded on the balance sheet or on the income statement, but it would be disclosed in the notes to the financial statements. It would be amortized to expense in future years on a straight-line basis over the longer period of either 15 years or the average remaining years of service (through expected date of retirement) of active employees expected to receive a benefit.[29]

However, some companies asked the option of immediate recognition in their comment letters by mentioning Accounting Principles Board Opinion No. 20 - "Accounting Changes," which describes that the change could be reported under either the "cumulative effect method" where the total effect appears on the income statement in the year of the change as a separate item or the "restatement method" where the effect is credited to beginning retained earnings in the year of the change. The

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[28] See paragraph 105 of the ED.

[29] See paragraphs 105-106 of the ED.

option is also supported by the position that the operating performance in the future years should not be burdened with unaccrued costs from prior years.

The Board considered permitting, but not requiring, immediate recognition of the transition obligation. The Board concluded that immediate recognition of the transition obligation should not be permitted by asserting that the understandability and comparability of financial reporting, both in the year of adoption and in subsequent periods, would be improved by uniformly phasing in recognition of the transition obligation or asset for postretirement benefits for all employers.[30] Such a delayed recognition is consistent with the delayed recognition of the effects of plan amendments and initiation and the delayed recognition alternative, i.e., corridor approach, for gains and losses.

Also, many respondents suggested that a longer transition period be prescribed since the transition obligation to be recognized in future periods must be a large amount which may exceed the transition obligation for pensions that arose under Statement No. 87, due to its unfunded status. Although the choice of 15 years, while paralleling the requirement of SFAS No. 87, is arbitrary, it is not clear whether the Board will lengthen the period or not.

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[30] See paragraph 227 of the ED.

Chapter 3. Consequences of the potential accounting rule change

3.1. Financial and market impact of the potential accounting change

A primary reason for the increased attention to retiree benefits is the significant size of the estimated unfunded employer obligations. This proposed accounting change will have a dramatic impact on the financial statements of employers that provide retiree benefits. Until recently, most corporate executives did not know the extent of their company's retiree health care programs or the cash flows needed to fund these programs. Recent estimated projections for aggregate unfunded obligations for private employers to date have ranged from approximately $227 billion to approximately $250 billion.[31] According to the study of General Accounting Office (GAO), companies can anticipate additional $175 billion when future services are taken into account.

A recent article from Institutional Investors presented the individual company's facts regarding the estimated impact of the change to accrual accounting for these benefits as follows:[32]

- One automobile maker will shoulder an unfunded postretirement liability in the order of $7 billion.
- Allied-Signal Corp.'s estimated liability will exceed $2 billion, half of its market capitalization.
- Du Pont's postretirement benefit liability will be somewhat

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[31] See U.S. General Accounting Office (September 1988).

[32] See Rosenberg (pp. 106, 1988).

less than half of its total pension liability which amounted to $7.3 billion at the end of 1987.

- The retiree benefits obligation outstrips the pension liability at companies that tend to have small pension obligations, such as banks and insurance companies, which generally have low pay scales.

Also, the Wall Street Journal recently reported a Towers Perrin, Forster & Crosby (TPF&C) study of 76 companies shows the change to an accrual method of accounting could reduce profits more than 50% at some companies. For the Fortune 100 companies, the change could trim reported profits by some $17 billion.[33] The summary of selected results, provided by TPF&C, is presented in appendix B. It shows that annual expense under the accrual accounting rules will be dramatically higher than current expense (normal cost per employee in the appendix). The change in each percentile ranges from 4 to 5 times. The mean of accrual expense per employee amounts to $3,167, which is 12.4% of current payroll expense while the median is $2,609, 10.3% of pay.

According to a recent article from Barron's, David W. Tice, editor of the Behind the Numbers newsletter, showed how much a proposed accounting change in retiree health benefit would affect earnings, book values, and important market ratios for 112 major corporations that he monitors, those widely followed

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[33] See the Wall Street Journal on May 5, 1988.

by his institutional clients.[34] He applied generic accrual accounting to those companies, based on the broad outlines of the FASB proposal, on what he could discover about the demographics of their workforce, and on their current pay-as-you-go costs for retiree health coverage. Appendix C, reproduced from the tables in the article, ranks the companies based on how much net earnings decreases by percentage due to accrual accounting.

According to appendix C, the company that is likely to be hurt the most in terms of earnings change is General Signal. It explains that General Signal's potential economic liability for retiree health costs amounts to $105 million; that debt would reduce book value by $5.56 a share, or 23%. If the company's surplus pension funds are credited to the liability, the decline in book value would be only 1%. Also, based on the most recent 12-month earnings (i.e., fiscal year 1987), net earnings shrink by $22 million, or 130%. The next columns show how these changes would affect the price-to-book and price-to-earnings ratio. The final column shows the amount the company reported for retiree health expense on a pay-as-you-go basis in fiscal year 1987.

Because these data, publicly available, were analyzed for individual firms, different from the other studies - such as TPF&C's (1988) and Coopers & Lybrand's [Dankner et. al. (1989)], they can be used for empirical analysis in chapter 4 and 5. A

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[34] See Barron's on April 17, 1989.

small sample test in sections 4.4 and 5.4 will show whether the earnings change in the database can explain the lobbying decision and the market reaction, respectively.

Mature companies with many retirees would be particularly affected. Companies in Rust Belt mature industries, such as steel, automobiles and chemicals, are generally expected to have the largest effect because they tend to have the largest commitment of postretirement benefits. For example, liability estimates for some steel companies range from about 20% to 100% or more of stockholders' equity. These companies have, on an average, two retired workers for every active employee. As a recent case, the LTV Corporation, which has 48,000 employees and 70,000 retirees, decided to recognize all the health-benefit costs immediately because it wanted to take a complete reading of all its accumulated liabilities during the reorganization. Thus, the company accrued a special charge of $2.26 billion against its net worth to reflect the estimated accumulated costs of health and life insurance benefits promised to retirees through December 1987. Also, LTV said that the change in accounting method for the retirement benefits reduced profits by $32.1 million in the third quarter of 1988.[35]

The FASB rule will also affect firms with few retirees because they will also suffer from a significant drop in earnings and book value unless they can reduce their postretirement benefits for <u>current</u> employees. In addition,

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[35] See the New York Times on November 22, 1988.

U.S. companies that compete in international markets will be badly hurt because their foreign competitors are from countries whose governments provide healthcare or where employer-provided benefits are not customary.

There appears to be a general agreement with that the accrual accounting for retiree benefits will change the financial statements of companies sponsoring these benefit plans through higher expense, significant recorded liabilities and reduced net worth.

According to the study by Employee Benefit Research Institute (1987), prepared by the actuarial firm of Milliman & Robertson Inc., the stock prices could be pushed down if the FASB goes ahead with plans to require companies to show accrued liabilities for retiree health benefits on their balance sheets. The fear is that accruing the liability makes companies appear less solvent because the impact on the financial statements could affect compliance with debt covenants and the determination of amounts payable under bonus, profit sharing, and other agreements.

3.2. Employers' reaction

Employers' concern about the increasing financial risk associated with their retiree benefits is understandable because they will soon be faced with: requirements for accrual accounting; guaranteeing coverage for former employees in certain instances; and establishing formal vesting, funding and participation provisions for their plans. While most large

companies do not plan to slash promised health care benefits for retired employees, they are using the same cost-cutting techniques being applied to control benefit costs for current employees.

Several reactions have taken place: employers shift far more of the financial risk to employees and settle for fewer benefits for employees. For example, the United Gas Pipeline Company, which paid 100% of the cost of claims in 1988, pays 90% in 1989. The J.C. Penney Company has decided to cover employees' spouses only if the employee is the principal wage earner in the family. And TRW Inc. no longer guarantees a certain level of medical benefits for its retirees.[36]

Also, many companies work aggressively to hold down expenses in many ways. For example, they sign a contract with a larger insurer or a health-care company that has a network of hospitals and doctors. The contract provides an insurer or a health-care company with an incentive to hold down costs because it will pay all or certain percentage of expenses that exceed a given amount. First Interstate, Proctor & Gamble, Wang Laboratories, May Department Stores, Southwestern Bell, and Allied-Signal have announced such arrangements.[37]

These substantial revisions will not make the new liability go away, and the only way to eliminate the liability completely is to cancel retirement health coverage both for current

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[36] See the New York Times on November 22, 1988.

[37] See the New York Times on June 27, 1988.

employees and for those already retired. However, this approach would involve some dangerous political risks and consequences such as labor disputes, lawsuits, reduced employee morale and increased turnover.

While many companies are implementing cost-cutting tactics in lieu of cancelling retiree health coverage, they are also attempting to modify or even nullify the proposed new accounting rule through lobbying to relieve or eliminate their adverse financial statement effects. The next chapter focuses on management's lobbying behavior with respect to the FASB's ED for retiree benefits, which is a usual response to any accounting standard change with a wealth effect.

Chapter 4. Corporate Lobbying Decisions

4.1. Literature review

Lobbying research in accounting has been viewed as a subset of a larger body of accounting choice research. Because lobbying also reveals a preference for specific accounting methods, the incentive to lobby is likely to be similar to that underlying the choice of accounting policies. However, this chapter looks at lobbying behavior as one of tactics a firm uses to respond to newly proposed mandatory accounting change, instead of accounting choice paradigm.

Holthausen and Leftwich (1983) summarize two types of studies of voting and lobbying behavior for proposed accounting standards. The first type predicts the lobbying position of corporations as a function of firm-specific variables, such as the effect of the proposed accounting standard on income, the existence of a management compensation plan, and the political visibility of the firm [e.g., Watts and Zimmerman (1978)]. The second type examines the association between the position of a standard-setting body and the expressed preferences of its constituents, such as corporations, auditors and academics. [e.g., Haring (1979) and Brown (1981)].

Watts and Zimmerman (1978, hereafter W-Z) examine lobbying positions on the FASB's discussion memorandum for general price-level adjusted statements, and find that firm size (their proxy for political visibility) and the effects of the proposed standard on income are statistically significant explanatory

variables. Neither the existence of a management compensation plan, nor membership in a regulated industry, is a significant factor in predicting corporate lobbying behavior. Hypotheses about lending agreements are not tested because the standard provides only supplemental information.

Dhaliwal (1982) studies lobbying positions on the FASB's discussion memorandum regarding accounting for interest costs. His sample is composed of 30 firms opposing capitalization and 14 firms opposing expensing of interest costs. The results indicate that firms with higher leverage are against expensing. A multiple discriminant analysis results in a statistically significant model, with the leverage factor accounting for most of the discriminatory power.

Kelly (1982) investigates both corporate lobbying and changes in financing or operating activities for the FASB's standard on foreign currency translation (Statement No. 8). Her hypothesis is that the two types of reactions are related; that is, the firms that lobbied against the standard would also make financing or operating changes after its passage. The result indicates no statistically significant relationship between the two reactions. Probit analysis shows that lobbying activities (only against the standard) occurred for firms with incentive compensation plans, greater leverage, larger size, and lower proportional management ownership. Also, firms that engaged in both reactions are characterized by greater leverage, larger size, and lower management ownership.

McKee, Bell and Boatsman (1984) replicate W-Z using the same sample and compare these results with identical tests based on a larger sample comprised of exposure draft submissions.[38] Neither a discriminant function nor a logistic regression equation provides statistically significant goodness-of-fit with the ED sample using W-Z's original model. Their alternative measure- ments of the predictor variables are introduced to improve the theory's performance, but it remains unimpressive. In contrast to W-Z, their sample consists of only unregulated firms.

Audit firm lobbying behavior is studied by Puro (1984) with two competing theories; economics of regulation and agency theory perspective. Two types of standards issued are considered to test the theories. The theory of regulation is found to be most useful in the case of a standard with new disclosure requirements while agency theory seems more likely to be supported in the case of rules which standardize accounting treatment. The results indicate that accounting rules which require new disclosures and rules which standardize accounting methods are different kinds of economic events.

Francis (1987) analyzes why firms participate in lobbying against the FASB's 1982 pension accounting proposals. Different from the assumption that firm-specific benefits of individual

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[38] A discussion memorandum is a "neutral" document which typically includes a general discussion of many aspects of an accounting issue while a tentative preference is stated in an exposure draft. Therefore, it can be believed that lobbying activity becomes more serious in ED stage.

lobbying or collective action are proportional to firm size, he shows that potentially adverse effects are cross-sectionally independent of firm size and that both firm size and the potential for adverse financial statement consequences explain firms' decision to lobby or not.

Deakin (1989) investigates the association between management lobbying on accounting for oil and gas producing activities and the effect that the method may have on firm cash flows and on accounting numbers by which the firm contracts are restricted. Full cost companies that lobbied at different stages of the FASB's deliberations are compared with those that did not. The logit models and their classificatory success rates are statistically significant. Also, he confirms that the models developed at each stage of the rule-making process provide statistically significant predictions for the other stages. This study suggests that the contract and cash flow effects are stable predictors of lobbying by managers. However, firm lobbying position is not tested since all full cost companies lobbied against the accounting change. In other words, he excludes the lobbying activities of companies using the successful efforts method.

The second type of research is not as closely related to the work on economic consequences of accounting preferences because the studies do not test specific contracting and monitoring costs. Haring (1979) tests for an association between the proposition of the FASB and the preferences of other

interested parties, and the association between auditor's positions and the positions of their clients. Brown (1981) describes both preference relationships among select respondents and preference relationships among those respondents and the FASB by employing multidimensional scaling and discriminant analysis. In general, the interpretation of the ten individual project maps varies across projects. Different alignments among the respondents, across the projects, indicate that neither strong nor consistent coalitions of respondents are present. He concludes that the FASB takes on an outlying position which is characterized by an extreme position from the majority of the respondents.

Although the associations among the respondents have some interesting implications, this chapter focuses on explaining what makes the corporate management lobby for or against a proposed accounting standard for postretirement benefits. The differences from the previous literature are the use of response index to show firm's comparative lobbying positions and such hypotheses not used in previous lobbying research as labor power, stock ownership, and financial slack hypotheses. Furthermore, the firms' lobbying decisions are considered with the market impact, which is explained in chapter 6.

4.2. Hypotheses on factors affecting management lobbying

As depicted in figure 1, proposed or enacted accounting changes have a different impact on the firm's financial statements depending on firm specific characteristics. Changes

in financial reports may lead to stock price reaction through new information disclosure and direct or indirect cash flow effects. Also, management's wealth, such as incentive remuneration and the value of human capital, may be affected by the firm's financial reports, both directly and via the stock market. Therefore, management's concern with the accounting policies used in external financial reporting (i.e., lobbying behavior) can vary according to firm specific characteristics, cash flow effects (direct or indirect), and management wealth effects. (See figure 1.)

4.2.1. Future income effect hypothesis

Management is concerned about the future income effect because the proposed accounting change will have an adverse impact on firms' future profitability. Expense under accrual accounting would be higher than under pay-as-you-go accounting. The difference will vary from company to company, depending on specific company demographics, the richness of plan benefits, and the assumptions used to determine expense. Actually, the magnitude of the impact of an accounting change is directly related with the estimation of actuarial liability. Because it is very difficult to estimate the actuarial liability needed to obtain the multiperiod income effect without a serious measurement problem, current expense for retiree benefits are used as a proxy for future income effect.[39] The potential for

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[39] In a small sample test, this variable will be replaced by the estimated income effect shown in Barron's. (See appendix C.)

an adverse income effect is greater for firms with relatively larger current expenses for these retiree benefits than others with less current expenses. Therefore, the following hypothesis can be developed with regard to future income effect:

H_1 : The firms with larger current expenses for retiree benefits are more likely to lobby against the FASB's proposal, ceteris paribus.

4.2.2. Labor power hypothesis

Firms' labor power facilitates the wealth transfer from resource owners to laborers because an employer's efforts to reduce the wealth transfer can be faced with the opposition of labor. Employees' labor power is usually stronger for the firms with higher labor intensity, compared to firms with less labor intensity. Although the labor intensity is different across industries, each firms' labor intensity is measured to proxy for labor power. Also, firms' capital intensity can be another proxy for labor power assuming that capital is an important substitute for labor in the production function. For example, there are two companies with similar sales size but different production function. It is naturally hypothesized that a firm with more labor and less capital will be more affected by any increase in accrual labor expenses than the other with less labor and more capital, in their production function.

Because firms' capital intensity or labor intensity can proxy for labor power, the labor power hypothesis can be

developed as follows:

H_2: The firms with higher labor intensity or less capital intensity are more likely to lobby against the new accounting rule, ceteris paribus.

4.2.3. Financial slack hypothesis

Once accrual accounting is adopted, liabilities for retiree benefits are recognized and only advance funding would significantly relieve firms from such a huge financial burden. Myers and Majluf (1984) argue that firms prefer to rely on internal sources of funds to finance investment projects due to negative signalling associated with new equity or debt issues. Therefore, the firms tend to have internal funds available by maintaining financial slack in the form of liquid assets and/or capability to issue risk-free debt. Since firms' capital availability is a key element for the funding, firms with more financial slack can easily set up the fund for retiree benefits to reduce the liability without resorting to external financing. Firm's free cash flow can proxy for capital availability because firm's internal growth and financial flexibility depend on an adequate amount of free cash flow. Free cash flow is defined as the amount available for corporate purposes after provisions for financing outlays and expenditures to maintain productive capacity.

Therefore, the following hypothesis is developed with regard to financial slack:

H_3: The company with less free cash flow is more likely to lobby against the proposed accounting standard for retiree benefits, ceteris paribus.

4.2.4. Management wealth hypothesis

The form of management compensation is determined by the contracts that arise to mitigate the conflict of interest between shareholder and manager. Jensen and Meckling (1976) argue that as the manager's percentage ownership of the residual claims of a firm decreases, increases in the value of those claims have less of an impact on the manager's wealth. Thus, the manager gains full utility from nonpecuniary income but bears only its proportion of ownership in the cost. To assure the stockholders that their interests will be protected, management is often given such forms of incentive compensation as stock ownership and stock option plans. If management's wealth can be affected by accounting change in retiree benefits through the stock compensation plan, management's concern about the wealth effect can be another important factor of the lobbying decision. Therefore, the following hypothesis can be developed:

H_4: Firms whose managers own more stocks are more likely to lobby against the proposed accounting rule because their wealth effect is higher than others with less stock ownership, resulting from market performance, ceteris paribus.

4.2.5. Debt contract hypothesis

Corporate lending contracts impose restrictions on the activities of borrowers, and many of those restrictions are expressed in terms of accounting numbers. Future increase in accrued expense and liability for retiree benefits induce changes in the closeness to the violation of restrictions in lending agreements. Therefore, the concern about technical defaults or other costs associated with violations of debt covenants can be a reason for corporate lobbying against the accounting change in retiree benefits. The level of a firm's leverage is a proxy for the firm's proximity to the technical default and renegotiation cost. Duke and Hunt (1990) support the use of debt-equity ratio because it captures such common debt covenant restrictions as retained earnings, working capital, and net tangible assets. El-Gazzar and Pastena (1990) find high correlation of financial statement variables in firms' financial covenants with the existence of production/ investment constraints and the closeness of accounting-based constraints to default. Thus, the debt-contract hypothesis is developed as follows:

H_5: The firms with higher debt-equity ratio are more likely to lobby against the proposed accounting standard for retiree benefits, ceteris paribus.

4.2.6. Market structure hypothesis

Some companies enjoy their monopolistic market structure

even without any strict government regulation. It seems that they are less sensitive to any accounting change which may change their cost structure. One tele-communication company responded to the ED in the comment letter that its increased burden from the proposed accounting rule can be transferred to the consumers directly by charging more with their justified cost increase. If they believe so, it is worthwhile to investigate the lobbying position of firms in the monopolistic market. Because regulated firms, such as utility firms, are excluded in the sample in this study, only telecommunication firms can be hypothesized as follows:

H_6: The firms in the telecommunications industry are less likely to lobby against the proposed accounting rule than the others, ceteris paribus.

4.3. Research design

4.3.1. Sample selection

A sample of firms is drawn from the FASB's public file of comment letters responding to the ED. Table 2A describes the number of responses by different institutions.

Table 2A. Description of Respondents by Institution Group

Institution	Total	Individual#	Representational#
Public Accounting	24	14	10
Industry	308	291	17
Actuary	14	12	2
Securities	4	3	1
Banking	26	23	3
Academe	7	6	1
Government	12	12	
Law	1	1	
Insurance	15	13	2
Other	14	11	3
Totals	425	386	39

* Source: FASB Public File Reference 1087-078

Only individual industry firms are considered in order to investigate the lobbying behavior. Out of 291 individual firms sending the letters to the FASB, only public and unregulated firms are investigated because the motivation for private or regulated firms (public utilities, transportation industry, and financial institutions) may be different from that of public and unregulated firms. Finally, I consider firms which provide retirees with postretirement benefits before the fiscal year 1988 because firms without the benefit plan might have different motivation for lobbying. A sample of 126 firms is identified by industry membership in table 2B.[40]

[40] Before this sample selection criterion, a sample of 150 firms is identified but 24 firms do not disclose any retiree benefit plans in their footnotes. These 24 firms are excluded for hypotheses testing.

Table 2B. Description of Sample Firms by Industry- Respondents

SIC code	Industry Name	No. of firms	Percentage
13	Crude petroleum & natural gas	1	0.8
14	Nonmetal minerals	1	0.8
20	Food	13	10.3
24	Lumber & woods	1	0.8
26	Paper & allied	8	6.3
27	Publishing	2	1.6
28	Chemical & drugs	23	18.3
29	Petroleum refining	12	9.5
30	Rubber & plastics	1	0.8
32	Glass, cement & concrete	2	1.6
33	Blast furnaces & steel	8	6.3
34	Hardware & metal works	3	2.4
35	Engine & machinery	12	9.5
36	Electronic systems & computers	5	4.0
37	Motor vehicles & aircrafts	16	12.7
38	Measurement & surgical instruments	7	5.6
48	Telephone communication	7	5.6
49	Natural gas transmission	1	0.8
53	Department stores	3	2.4
Total firms		126	100%

4.3.2. Variable definition and methodology

The firms' lobbying positions are identified by reading the letters. Previous researchers have classified responses to the Board as either "for" or "against" the entire exposure draft. Because many respondents often supported parts of proposals while opposing others, this dichotomy coding seems to be inadequate in describing reality. Therefore, more detailed coding can be done by using the five questions dealing with key issues of the FASB's ED in the appendix D.

Based on the accounting issues discussed in chapter 2, the most important criterion is whether accrual accounting is appropriate for the retiree benefits or not. If a company agrees with the use of accrual accounting for retiree benefits, then it is given 5 points on the response index and reviewed for the next questions. Otherwise, the next issues are not considered, and the company is given 0 points of response index even if there are some comments on the issues. The second question is on the attribution period. The firms suggesting for the longer period (for example, from the date of hire to age 65) will be given less points because the ED proposes a shorter period. The third question deals with an important assumptions about the medical cost trend rate. The obligation and accrual expense will be very different depending upon whether the medical cost inflation is considered or not. The fourth question, an amortization of transition obligation (or asset), is also one of the key features in the ED regarding the future

income effect. The longer period the firm suggests, the smaller index it is given. The final question is concerned with whether a minimum liability should be recognized or not. Even if the Board changed its position after the public hearings,[41] this question is included because the lobbying decision was already done to the ED. As noted in the appendix, the firms with higher index are regarded as having more similar position to the FASB than the others with lower index.

All of the independent variables for the hypotheses are measured by averaging 1987 and 1988 amounts except stock ownership and industry. All variables except management stock ownership are obtained from the Compustat Annual Industrial File, Moody's Industrial Manual, or firms' 10-K or annual reports. For most of the sample firms, management ownership percentage was identified from the data source of "Forbes 800 most powerful people in Corporate America." Firms' proxy statements were used for firms not included in the data source. The variables for hypotheses testing are defined as follows:

Current cash expenses for retiree benefits are drawn from the footnote of annual reports and transformed into logarithmic form. Firms' labor intensity is measured as sales per employee scaled by firms' total assets, and capital intensity is formed as a proportion of depreciation and interest expenses out of firms' total expenses [Lev (1983)]. Firms' free cash flow is

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[41] See the FASB's minutes of the April 11, 1990 Board meeting, reproduced in appendix A.

measured as cash flow from operations minus capital expenditures and dividend payments for preferred and common stocks [Bernstein (1989)], which is scaled by the total assets. Leverage is measured as a ratio of total debt-to-total equity. Industry is a dichotomized dummy variable; i.e., one for telecommunication industry and zero for other industries.

A cross-sectional multiple regression analysis is done by using ordinary least squares (OLS) to test the hypotheses. Alternatively, logit analysis is done for two distinct groups with extreme positions because it is possible to identify these groups such as: one group which strongly opposed to accrual accounting for retiree benefits and the other which had positions similar to the FASB's. To have more powerful evidence, the neutral group is excluded for the logit analysis.

Specifically, the regression model is defined as follows:

$$LRI = a_0 - a_1 LEXP + a_2 CAPINT \text{ (or SPEMPTA)} + a_3 FCFTA - a_4 MOWN - a_5 DERATIO + a_6 INDUS + u ,$$

where:

LRI = Lobbying Response Index (from 0 to 25),

LEXP = Log of current expenses for retiree benefits,

CAPINT = Capital intensity measured as depreciation and interest expenses out of total expenses,

SPEMPTA = Sales per employee divided by total assets,

FCFTA = Free cash flow measured as cash flow from operations minus capital expenditure and dividends, scaled by total assets,

MOWN = Top management's proportion of stock

ownership,

DERATIO = Leverage measured as total debt to total equity,

INDUS = As a dummy variable, one for telecommunication industry and zero for all other industry groups.

a_{0-6} = regression coefficients,

u = random error term.

4.4. Small sample test

The cross-sectional model is replicated with the firms analyzed in Barron's because the sample have the estimated income effect. (See appendix C.) Thus, this replication tests whether the estimated income effect, replacing current expenses, can improve the model's prediction power and smaller number of sample firms can hold the lobbying model.[42]

4.5. Empirical results

4.5.1. Descriptive statistics

First, table 3 presents the distribution of lobbying response index (LRI) which was obtained from the questions given in appendix D. Firms with zero LRI are interpreted as those disagreeing with accrual principle for retiree benefits. Most of them emphasize that these benefits have different characteristics from pensions, especially in that the former can be terminated or reduced by employers' own will. The higher LRI means more similar position to the FASB's ED.

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[42] Because of the intersection between the lobbying firms and the firms in Barron's, sample size is reduced from 126 to 69.

Table 3. Distribution of Lobbying Response Index (LRI)

LRI	# of firms	Percentage
0	22	17.5%
5	2	1.6
7	2	1.6
8	3	2.4
9	5	4.0
10	3	2.4
11	8	6.3
12	4	3.2
13	13	10.3
14	12	9.5
15	5	4.0
16	8	6.3
17	3	2.4
18	10	7.9
19	7	5.6
20	4	3.2
21	6	4.8
22	1	0.8
23	8	6.3
	126	100%

Table 4 also provides a distribution of the index by different industry group. Out of 10 industry groups composed of more than 5 companies, four industry groups have higher LRI than the average (such as tele-communication, food, electronic systems & computers, and petroleum refining industry), and six industry groups have lower LRI than the average (such as measurement & surgical instruments, motor vehicles & aircrafts, chemical & drugs, engine & machinery, paper & allied, and blast furnaces & steel industry).

Table 4. Lobbying Response Index by Industry Group

SIC code	# of firms	Mean of LRI	Std Dev	Minimum	Maximum
13	1	9	.	9	9
14	1	23	.	23	23
20	13	13.9	6.9	0	23
24	1	17	.	17	17
26	8	11.9	7.5	0	18
27	2	20	4.2	17	23
28	23	10.4	6.9	0	23
29	12	13	7.6	0	23
30	1	18	.	18	18
32	2	13.5	3.5	11	16
33	8	12	8.8	0	22
34	3	18.3	1.5	17	20
35	12	11.8	6.8	0	20
36	5	13.2	3.8	10	19
37	16	10.6	6.7	0	18
38	7	9.1	9.2	0	23
48	7	20.7	1.9	18	23
49	1	15	.	15	15
53	3	8.3	7.2	0	13
Total	126	12.5	7.1	0	23

* See industry name for each SIC in table 2B.

Table 5 shows the descriptive statistics of variables used for the lobbying model that explains the determinants of firms' lobbying position, i.e., LRI. Cumulative abnormal stock returns are presented in the table because they are added in the lobbying model to test the wealth transfer hypothesis which is explained in chapter 6.[43]

[43] A single index market model is applied to two last events in table 11. Abnormal returns are accumulated from -1 day to 0 day for each event. The summation of two-event cumulative abnormal returns is a proxy for the market reaction in explaining the wealth transfer.

Table 5. Descriptive Statistics of Variables - Lobbying Model

Variable	Observation	Mean	Std Dev	Minimum	Maximum
LRI	126	12.5	7.05	0	23
LEXP	126	2.17	2.32	-4.61	6.95
CAPINT	126	0.084	0.050	0.027	0.322
SPEMPTA	126	0.062	0.157	0.001	1.590
FCFTA	126	-0.0059	0.073	-0.276	0.262
MOWN	126	0.379	1.739	0	14.24
DERATIO	126	1.180	0.675	0	3.715
INDUS	126	0.056	0.230	0	1
TCAR2	125	-0.0044	0.030	-0.124	0.095
TSCAR2	125	-0.187	1.536	-5.896	5.379

* Explanation of variables

LRI: Firms' response index obtained from comment letters.

LEXP: Log function of current expense for postretirement benefits other than pensions. (Average of 1987 and 1988)

CAPINT: Firms' capital intensity measured as depreciation and interest expenses out of total expenses. (Same as above)

SPEMPTA: Sales per employee divided by total assets.

FCFTA: Firms' free cash flows divided by total assets which are averaged for recent two years.

MOWN: Top management's inside stock ownership in 1988.

DERATIO: Firms' debt-to-equity ratio. (Two year average)

INDUS: As a dummy variable, one for telecommunication industry and zero for all other industry group.

TCAR2: Two-day cumulative abnormal returns for the last two events.

TSCAR2: Two-day standardized cumulative abnormal returns for the last two events.

4.5.2. Test results of cross-sectional analysis

Tables 6A and 6B present Pearson and Spearman correlation matrix among variables, respectively. In table 6A, the pair-wise correlation between the variables CAPINT and INDUS is significantly high which would indicate some degree of multicollinearity. Thus, those two variables are not entered in the model simultaneously. Also, the pair-wise correlation between the variables SPEMPTA and MOWN is significantly high, so MOWN is not tested when SPEMPTA surrogates labor power.

Table 6A. Pearson Correlation Coefficients - Lobbying Model

	LRI	LEXP	CAPINT	SPEMPTA	FCFTA	MOWN	DERATIO	INDUS	TCAR2
LRI	1.00	-0.12	0.19[b]	-0.01	0.09	-0.16[c]	0.01	0.28[a]	0.10
LEXP		1.00	0.25[a]	-0.22[b]	-0.22[b]	-0.08	0.23[b]	0.17[c]	-0.18[b]
CAPINT			1.00	-0.16[c]	-0.06	-0.10	0.20[b]	0.76[a]	0.11
SPEMPTA				1.00	-0.02	0.58[a]	-0.10	-0.05	0.21[b]
FCFTA					1.00	-0.03	-0.23[b]	-0.09	-0.14
MOWN						1.00	-0.14	-0.05	0.05
DERATIO							1.00	0.08	0.12
INDUS								1.00	0.16[c]
TCAR2									1.00

* a: significant at less than 1%.
  b: significant at less than 5%.
  c: significant at less than 10%.
  (based on two-tailed test)

** See table 5 for the definition of variables.

Table 6B. Spearman Rank Correlation Coefficients - Lobbying Model

	LRI	LEXP	CAPINT	SPEMPTA	FCFTA	MOWN	DERATIO	INDUS	TCAR2
LRI	1.00	-0.13	0.05	0.07	0.06	-0.26[a]	-0.01	0.32[a]	0.08
LEXP		1.00	0.32[a]	-0.67[a]	-0.11	-0.41[a]	0.29[a]	0.19[b]	-0.09
CAPINT			1.00	-0.25[a]	-0.07	-0.17[c]	0.15[c]	0.39[a]	0.06
SPEMPTA				1.00	0.22[b]	0.33[a]	-0.25[a]	-0.22[b]	-0.03
FCFTA					1.00	0.03	-0.16[c]	-0.14	-0.09
MOWN						1.00	-0.09	-0.17[c]	-0.01
DERATIO							1.00	0.15	0.14
INDUS								1.00	0.16[c]
TCAR2									1.00

* a: significant at less than 1%.
  b: significant at less than 5%.
  c: significant at less than 10%.
  (based on two-tailed test)

** See table 5 for the definition of variables.

Table 7 provides the result of cross-sectional regression analysis for various models. Coefficients are significant when the coefficient carries the predicted sign and the t-statistic exceeds 1.28 ($p<0.10$), an one-tailed test. First of all, current expense for retiree benefits (LEXP) is consistently significant across all models, supporting that the firms with larger amount of current retiree expenses are more likely to disagree with the proposed ED. For the second hypothesis, capital intensity (CAPINT) has a significant explanatory power while sales per employee (SPEMPTA) is an insignificant coefficient with an unpredicted sign. Third, the free cash

flow, a proxy for capital availability, is consistently insignificant across all models. Fourth, management stock ownership (MOWN) supports the management wealth hypothesis with statistically significant coefficient on a consistent basis. Fifth, the debt-equity ratio, a proxy for debt contract hypothesis, is the least significant variable without any explanatory power. Finally, tele- communication industry (INDUS) is a powerful explanatory variable, supporting that firms in this industry have closer position (higher LRI) than all other firms in the other industries. Adjusted R-square ranges from 5.7% to 10.6%.

In summary, the cross-sectional regression results consistently support such hypotheses as future income effect, management wealth through stock ownership, and market structure. Labor power hypothesis is partially supported because only CAPINT is statistically significant but SPEMPTA is not. The hypotheses of financial slack and debt contract are not supported by the results above.

Table 7. Results of Regression Analysis - Lobbying Model

Response Index = $a_0 - a_1$LEXP + a_2CAPINT + a_3FCFTA - a_4MOWN
(or a_2'SPEMPTA)

$-a_5$DERATIO + a_6INDUS + a_7TCAR2(TSCAR2) + u,

Model	Coefficient							Adj. R^2	F-Stat
	a_1	a_2	a_3	a_4	a_5	a_6	a_7		
I	0.515 (1.82)[b]	32.04 (2.48)[a]	6.284 (0.72)	0.626 (1.75)[b]	0.071 (0.07)	-	-	5.7%	2.51[b]
II	0.472 (1.60)[c]	30.88 (2.35)[a]	6.370 (0.71)	0.642 (1.79)[b]	0.210 (0.22)	-	16.76 (0.77)	5.4%	2.19[b]
III	0.452 (1.54)[c]	30.34 (2.31)[b]	6.714 (0.75)	0.666 (1.85)[b]	0.264 (0.27)	-	0.43 (1.01)	5.8%	2.26[b]
IV	0.509 (1.89)[b]	-	8.339 (0.98)	0.638 (1.84)[b]	0.199 (0.21)	9.573 (3.63)[a]	-	10.6%	3.98[a]
V	0.488 (1.72)[b]	-	7.991 (0.92)	0.648 (1.85)[b]	0.087 (0.09)	9.376 (3.47)[a]	10.83 (0.51)	10.2%	3.34[a]
VI	0.477 (1.68)[b]	-	8.147 (0.94)	0.662 (1.89)[b]	0.054 (0.06)	9.248 (3.40)[a]	0.27 (0.63)	10.3%	3.37[a]
VII	0.497 (1.77)[b]	-0.973 (0.25)	9.407 (1.09)	-	-0.408 (0.44)	9.727 (3.64)[a]	-	8.2%	3.23[a]
VIII	0.482 (1.66)[c]	-1.290 (0.32)	8.986 (1.02)	-	-0.300 (0.31)	9.547 (3.49)[a]	10.08 (0.46)	7.6%	2.71[b]
IX	0.479 (1.65)[c]	-1.461 (0.36)	9.040 (1.02)	-	-0.281 (0.29)	9.468 (3.43)[a]	0.22 (0.50)	7.7%	2.72[b]

* a: significant at less than 1%.
b: significant at less than 5%.
c: significant at less than 10%.
(based on one-tailed test)

** See table 5 for the definition of variables.

*** CAPINT variable is replaced by SPEMPTA in Model VII, VIII, and IX.

**** Standardized abnormal return is used in Model III, VI, and IX.

4.5.3. Test results of small sample analysis

The small sample has similar moments in all variables to the original lobbying sample except the management stock ownership. Correlation among variables also shows similar pattern but the less significant correlation between the LRI, dependent variable and management stock ownership. When the old regression model is replicated with this smaller sample, the same hypotheses are supported except the management wealth hypothesis. It suggests that the other observations excluded in the smaller sample drive the variable to a more significant level. Also, both the model specification (F-value) and explanatory power (R^2) become smaller due to the lower degree of freedom.

When the variable estimated income effect, obtained from an analyst, replaces the current expenses, this variable becomes insignificant with different sign. Hence, both the model specification and explanatory power deteriorate with the variable. It indicates that in this sample firms, an analyst's estimated data have less explanatory power than what the current expenses have. Instead, the variable surrogating financial slack (FCFTA) becomes significant with a prior correct sign. The reason is that the pair-wise correlation between the current expense and the free cash flow is significantly high (-0.485) in this smaller sample, which would cause multicollinearity problem when both variables are included in the model. Therefore, the free cash flow becomes significant with the estimated income

effect while it used to be insignificant with the current expense.

The other variables, CAPINT and INDUS have statistically significant coefficient like original sample and smaller sample with current expenses. The ownership variable still lose the significance level with the estimated income data.

4.5.4. Test results of logit analysis

In addition to the analysis of all sample firms using OLS regression, two distinct groups can be analyzed within the same model but using logistic estimation. The lobbying firms can be classified into two extreme groups when considering only two polar firms based on the location of LRI. One group with zero LRI is regarded as the 'against-group' because the firms in the group oppose accrual accounting for retiree benefits. The other distinct group with LRI greater than 17, is called as the 'for-group' which relatively agree with the FASB's ED. Although the classification is arbitrary, the model would be powerful because the determinants attempt to explain only extreme observations. Before the logit analysis, univariate t-test compares the mean value of explanatory variables between two different groups in table 8.

Table 8. Comparison of Variables between Two Extreme Groups

Variable (# Firms)	Against-group (22)		For-group (36)		Mean Difference (t-value)
	Mean	Std Dev.	Mean	Std Dev.	
LEXP	2.650	1.846	1.883	2.469	1.26[c]
CAPINT	0.074	0.023	0.103	0.077	-2.15[b]
SPEMPTA	0.040	0.053	0.053	0.061	-0.89
FCFTA	-0.026	0.096	0.000	0.050	-1.18
MOWN	0.750	3.015	0.077	0.096	1.05
DERATIO	1.135	0.626	1.106	0.739	0.15
LSALE	8.862	1.277	8.522	1.118	1.07
TCAR2	-0.87%	0.026	0.19%	0.029	-1.40[c]
TCAR3	-1.28%	0.024	0.28%	0.025	-2.36[a]
TCAR4	-1.46%	0.027	-0.20%	0.028	-1.65[b]
TCAR5	-1.85%	0.034	-0.14%	0.034	-1.83[b]

* Against-group is composed of firms with response index zero, which oppose accrual accounting. For-group is composed of firms with response index greater than 17 points, which relatively agree to the FASB's proposed accrual accounting.

** a: significant at less than 1%.
b: significant at less than 5%.
c: significant at less than 10%.
(based on one-tailed test)

*** TCAR3: Sum of three-day cumulative abnormal returns at two last events. (from -1 to +1 day)

TCAR4: Sum of four-day cumulative abnormal returns at two last events. (from -2 to +1 day)

TCAR5: Sum of five-day cumulative abnormal returns at two last events. (from -2 to +2 day)

**** See table 5 for the definition of all other variables.

The 'against-group' has relatively higher mean value of current expenses, management stock ownership, and debt-to-equity ratio than the 'for-group'. Also, the former has lower mean value of capital intensity, sales per employee, free cash flow, and cumulative abnormal returns than the latter. However, only current expenses, capital intensity, and cumulative stock returns have differences at less than 10% significance level.

Table 9 presents the results of stepwise logistic model.

Table 9. Results of Stepwise Logit Model - Lobbying Model

Response Code $= a'_0 - a'_1 LEXP + a'_2 CAPINT - a'_3 MOWN + a'_4 TCAR2$

$-a'_5 DERATIO + a'_6 FCFTA + u'$,

Model	Coefficient						Chi-Square (p-value)	% Correctly Predicted (Z-value)	R#
	a'_1	a'_2	a'_3	a'_4	a'_5	a'_6			
I	0.55 (4.76)[b]	14.97 (3.82)[b]	8.64 (4.86)[b]	5.90 (0.21)	0.19 (0.12)	1.33 (0.06)	15.68 (0.016)[a]	64.9% (1.83)[b]	.22
II	0.57 (5.54)[b]	14.96 (3.80)[b]	8.94 (3.55)[b]	5.63 (0.19)	0.22 (0.18)		15.62 (0.008)[a]	64.9% (1.83)[b]	.27
III	0.59 (6.07)[a]	14.66 (3.72)[b]	9.36 (3.26)[b]	4.42 (0.13)			15.44 (0.004)[a]	66.7% (2.11)[b]	.31
IV	0.60 (6.37)[a]	14.92 (3.93)[b]	9.50 (2.73)[b]				15.31 (0.002)[a]	66.7% (2.11)[b]	.35

* Response code is - 1 if firms' response index is greater than 17, and
- 0 if firms' response index = 0.

** Numbers in parentheses are chi-square statistics for each coefficient.

*** a: significant at less than 1%.
b: significant at less than 5%.
c: significant at less than 10%.
(based on one-tailed test)

**** See table 5 for the definition of variables.

The results are very consistent to those of the OLS regression shown in table 8. The proxies for future income effect, management wealth, and labor power (CAPINT) show statistically significant coefficients with predicted signs.[44] Also, the proxies for financial slack and debt contract can not improve the model's explanatory power, indicating the rejection of the alternative hypotheses. All four models are significant at $p < 0.01$. The statistic R#, described in McKee et al. (1984), ranges from 0.22 to 0.35. This is a measure equivalent to R^2 from an OLS regression and reflects the fit of the model. Overall classification accuracy (p) ranges from 64.9% to 66.7%. To test the statistical significance of the predictive ability, Z-statistic is computed based upon proportional group classification success. Here the chance criterion (C_i) is based on the squares of the proportions of the observations in each group [Morrison (1969)]. The value of Z statistic is defined as follows:

$$Z = \frac{p - C_i}{(C_i(1-C_i)/n)^{\frac{1}{2}}}$$

where:

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[44] When sales per employee (SPEMPTA) was used in the model, the model's significance level dropped sharply.

p : Observed correct classification rate,

C_i : Chance criterion = $a^2 + (1-a)^2$, where a is the proportion of sample observation in group 1,

n : Total sample size.

Computed Z-statistic ranges from 1.83 to 2.11, which is significant at the .05 level.

Chapter 5. Market Reaction to the Events Leading to Accounting Change

5.1. Literature review

Efficient market research has shown that the stock market reacts to accounting standards or discretionary accounting changes only when new information is disclosed or when there is a direct cash flow effect (generally, tax consequences). Thus, it has been difficult to understand why firms make accounting changes, why firms expend resources to lobby for or against proposed changes, and why the stock market reacts to certain mandatory accounting change without tax implications. Recently, economic consequences, as applied to alternative accounting policies, include changes in expectations regarding future cash flows from information production and processing costs, political costs, and the effects associated with various contractual relationships. A number of previous studies explicitly test agency theory of how mandatory accounting changes can affect security returns in the areas of accounting for business combination [Leftwich (1981)], oil and gas accounting [Collins, Rozeff and Dhaliwal (1981) and Lys (1984)], lease accounting [Ro (1978), Bowman (1980), and Pfeiffer (1980)], retail land sales accounting related with good or bad news [Hughes and Ricks (1984)], long-term investments [Ricks and Hughes (1985)], and foreign currency accounting [Haw, Lilien and Pastena (1987), Ziebart and Kim (1987) and Salatka (1989)]. Most of these studies, first, attempt to capture abnormal market returns (monthly, weekly and daily) around the events leading up

to the accounting change, and then investigate what factors could explain the market reaction to these specific events. They assume a positive correlation between debt ratios and default risk, and use various contract variables to explain security price behavior associated with the announcement of the mandatory accounting change. In general, most of the findings in the previous research support contracting and political cost theories in differing degrees depending on the specific accounting topic and methodologies adopted.

Similar to previous literature, my approach involves both an analysis of average market reactions to events indicating the accounting change in nonpension retiree benefits, and an analysis relating individual reactions to variables serving as proxies for the economic consequences of the future change. The first stage compares daily excess returns between an experimental group which provides employees with retiree benefits and a control group of non-providing firms that are not affected by a new accounting rule. For the second phase, this paper tests the following cross-sectional hypotheses using two estimation techniques such as ordinary least squares (OLS) and generalized method-of-moments estimation (GMM). Leftwich (1981), Collins et al. (1981) and Lys (1984) use ordinary least-squares (OLS) cross-sectional regression. Hughes and Ricks (1984) use both OLS and Zellner's (1962) grouping regression equations known as seemingly unrelated regressions (SUR). However, no previous accounting and finance literature used GMM

estimation, a technique which was developed by Hansen (1982) and elaborated by Froot (1989).

5.2. Hypotheses development

5.2.1. Market reaction hypothesis

As discussed before, the proposed mandatory accounting change for retiree benefits is expected to have a negative impact on security returns of those firms that provide employees with the benefits (i.e., providers) because it will force firms to report additional liabilities and expenses. These consequences will probably make managers modify production, investment and financing activities to avoid contract violations or re- negotiation of lending agreements. Such responses impose costs on the firm and its value would fall in response to any event that indicates the possibility of an accounting change for retiree benefits from cash basis to accrual basis. In addition to these indirect cash flow effects, there are changes in future cash flows because the proposed accounting standard would result in additional information processing costs and financing problem due to possible advance funding.

As described in figure 1, changes in mandatory accounting principles have an impact on stock prices for such reasons as new information, direct cash flow impact, debt agreements and political costs. Also, various management reactions to accounting change can affect stock prices again in a feedback function.

On the other hand, it would be expected that the firms

which do not provide employees with nonpension retiree benefits are not influenced by the events indicating accounting change. However, if the non-providers plan to adopt the benefit plan in the future, they will not be completely immune to the proposed accounting change. Therefore, the following hypotheses can be developed in alternative forms:

H_1: For providers, there is a negative market reaction to the events suggesting accounting change for retiree benefits.

H_2: For non-providers, there is no market reaction to the events suggesting accounting change for retiree benefits.

The following five hypotheses are applied only to providers because I attempt to explain the market reaction for providers to each event through the hypotheses proposed. Most of hypotheses are similar to ones in chapter 4 except that management wealth hypotheses are not tested here. Also, different industry classification is done in order to explain the differential market reactions.

5.2.2. Future income effect hypothesis

Most previous studies find a significant relation between abnormal stock returns and the magnitude of the income impact due to an accounting change. It is generally known that firms with a higher estimated benefit obligation are likely to have a greater income effect which will lead to a stronger market

reactions relative to those firms with lower obligation, other factors being equal. Because it is very difficult to estimate the actuarial liability needed to obtain the multi-period income effect without a serious measurement problem, this study uses as a proxy only the current pay-as-you-go cost for retirees, as used in chapter 4. It is assumed that more current expenses would lead to more accrued liability which consequently gives birth to higher accrued expenses under the proposed accounting rule. Therefore, the following hypothesis can be developed in its alternative form:

H_3: Abnormal returns around the event days are inversely related to firms' current expenses for retiree benefits plan, ceteris paribus. In other words, firms with more current expenses would have more negative returns than those with less expenses.

5.2.3. Labor productivity hypothesis

The market reaction may differ depending on firm's labor productivity, which is defined as the average product of labor. Sales per employee is practically used as a proxy for firm's labor productivity. Because firms with lower labor productivity are believed to have more dependence on labor factor in the production (i.e., labor intensive firms), these firms would have more additional liabilities and expenses due to the future accounting change. Therefore, the lower the labor productivity of a firm, the higher the equity value reduction.

In this context, the following hypothesis can be developed in its alternative form:

H_4: Abnormal returns during the event days are positively related to firms' labor productivity. In other words, the firms with lower sales per employee (i.e., lower labor productivity) are likely to have more negative abnormal returns than those with higher sales per employee, ceteris paribus.

5.2.4. Differential industry effect hypothesis

Industry membership is hypothesized to be one of the explanatory variables for the market behavior because the market reaction will be differential across different industries. Many analysts agree with the statement that the proposed accounting rule has a stronger negative impact on such mature industries as steel and heavy metals, machinery, and auto and auto parts. Also, the firms in the industry tend to have strong unions which had many members for a relatively long period. However, this industry membership is not a perfect proxy for the unionization because there are many other companies with heavy unionization besides those industries. Differential market reaction can be directly observed by each portfolio group as well as by using dummy variables in the multiple regression.

H_5: The abnormal security returns are more negative for firms in the mature industries such as steel, metal sheets, and auto relative to those in other industries,

ceteris paribus.

5.2.5. Financial slack hypothesis

Most investors and analysts agree with the notion that firms' capital availability is a key element for the funding to reduce the future liability for retiree benefits. As suggested in chapter 4, free cash flow may proxy for capital availability. According to the recent report by U.S. General Accounting Office [U.S. GAO (June 1989)], advance funding of retiree health liabilities may be the only way that many U.S. companies will be able to pay promised benefits in the future. Moreover, the longer companies wait to begin advance funding these benefits, the higher their costs will be because both retiree health benefit payments and the number of retirees are continuing to increase. Thus, the following hypothesis can be developed for market reaction with respect to financial slack in its alternative form:

H_6: Abnormal returns during the event periods are positively related to firms' capital availability. In other words, firms with less free cash flows would have more equity reduction than those with more free cash flows, ceteris paribus.

5.2.6. Debt contract hypothesis

Corporate lending agreements restrict the financing and investment decisions of borrowing firms. Those restrictions use accounting numbers that are based on generally accepted

accounting principles. Thus, mandatory accounting changes in the principles can change the restrictions in lending agreements and affect the equity value of firms with debt outstanding. Concern about technical default or other costs associated with violations of debt covenants was revealed as the basis for industry's objection to the FASB's preference for accrual accounting for retiree benefits. In other words, the increased tightness of debt-equity ratios, interest coverage ratios, and working capital ratios in the future induce managers to take costly actions to avoid a possible default, restrictions on the issuance of additional debt, and/or restrictions in the investment activities of the firm. Kalay (1982) shows that the potential for wealth transfer from bondholders to manager-shareholders increases with greater amounts of leverage. Because higher debt levels result in more wealth per share to transfer, bondholders reduce bond prices accordingly. To avoid this residual loss, manager-shareholders may agree to more debt restrictions. Thus, the following hypothesis can be developed, stated in its alternative form:

H_7: **Abnormal returns during the event days are inversely associated with firms' leverage ratios, ceteris paribus. In other words, firms with larger leverage ratio have more negative abnormal returns.**

5.3. Research Design

5.3.1. Sample selection

The primary sample is selected from 600 firms which were surveyed in the 1986 Accounting Trends & Techniques. All companies included in the survey are registered with the Securities and Exchange Commission and are reported in either Moody's Industrial Manual or Moody's OTC Industrial Manual. There are two portfolio groups in the survey; that is, 345 firms disclosed that they provide postretirement health care and life insurance benefits while the other 255 firms did not. Also, the sample firms are selected on the basis of the following criteria: 1) they must have data on the Compustat annual industrial tapes for the event periods; 2) they must have data on the CRSP daily stock returns tapes for the event and estimation periods; 3) annual reports or 10-K's must be available for test periods (1983-1988); 4) they must not have any doubtful confounding events in each event period;[45] for example, earnings announcement, dividend announcement (including stock dividend and stock splits), court rulings, disposal of business, mergers or acquisition, management changes, or sales contract. These screening procedures result in a different number of firms in each test period. Tables 10A and 10B provide the sample description of the 238 firms of the providers group and the 161 firms making up the non-providing group, respectively by industry, both of which met the criteria 1) to

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[45] See Foster (1980).

3).

Table 10A. Sample Description by Industry Membership - Providing Group

SIC code	Industry Name	No. of firms	Percentage
01	Agriculture production	1	0.4%
10	Metal mining	2	0.8
13	Crude petroleum & natural gas	1	0.4
14	Nonmetal minerals	2	0.8
16	Construction	2	0.8
20	Food	18	7.6
21	Cigarettes	1	0.4
22	Textile	2	0.8
23	Apparel	1	0.4
24	Lumber & woods	2	0.8
25	Furniture	1	0.4
26	Paper & allied	10	4.2
27	Publishing	7	2.9
28	Chemical & drugs	38	16.0
29	Petroleum refining	20	8.4
30	Rubber & plastics	1	0.4
32	Glass, cement & concrete	8	3.4
33	Blast furnaces & steel	18	7.6
34	Hardware & metal works	12	5.0
35	Engine & machinery	29	12.2
36	Electronic systems & computers	8	3.4
37	Motor vehicles & aircrafts	26	10.9
38	Measurement & surgical instruments	11	4.6
47	Transportation services	2	0.8
48	Telephone communication	2	0.8
49	Electric services	1	0.4
51	Wholesale-drug,groceries	1	0.4
53	Department stores	4	1.7
54	Retail-food stores	2	0.8
56	Retail-apparel	1	0.4
58	Retail-eating places	1	0.4
59	Retail-drug stores	1	0.4
87	Service-engineering	2	0.8
Total firms		238	100%

Table 10B. Sample Description by Industry Membership - Nonproviding Group

SIC code	Industry Name	No. of firms	Percentage
12	Bituminous coal	1	0.6
13	Crude petroleum & natural gas	3	1.9
16	Construction-Nonbuilding	1	0.6
17	Construction	1	0.6
20	Food	10	6.2
21	Cigarettes	2	1.2
22	Textile	5	3.1
23	Apparel	5	3.1
25	Furniture	3	1.9
26	Paper & allied	5	3.1
27	Publishing	7	4.3
28	Chemical & drugs	6	3.7
29	Petroleum refining	4	2.5
30	Rubber & plastics	4	2.5
31	Footwear	1	0.6
32	Glass, cement & concrete	1	0.6
33	Blast furnaces & steel	3	1.9
34	Hardware & metal works	3	1.9
35	Engine & machinery	11	6.8
36	Electronic systems & computers	24	14.9
37	Motor vehicles & aircrafts	5	3.1
38	Measurement & surgical instruments	6	3.7
39	Toys & miscellaneous	6	3.7
40	Railroad	1	0.6
42	Trucking	1	0.6
48	Telecommunication	1	0.6
49	Electric services	3	1.9
50	Wholesale-electronics, machine	6	3.7
51	Wholesale-drug,groceries	7	4.3
52	Retail-lumber	2	1.2
53	Department stores	3	1.9
54	Retail-food stores	4	2.5
56	Retail-apparel	2	1.2
58	Retail-eating places	2	1.2
59	Retail-drugstore	2	1.2
72	Service-personal	1	0.6
73	Service-data processing	2	1.2
78	Service-motion picture	2	1.2
79	Service-amusement	2	1.2
80	Service-health care	2	1.2
87	Service-engineering	1	0.6
Total firms		161	100%

5.3.2. Selection of critical event dates

To examine the firms' security returns, this study considers as event dates the series of the FASB's works for retiree benefits and some news released in financial journals. These events are selected because they may have significantly changed expectations about employer's financial obligation for retiree benefits. The first Discussion Memorandum is presumably a weak event because it just raised the question of accounting for nonpension benefits in addition to pensions. Also, both the Preliminary Views and the second Discussion Memorandum did not separate the issue of accounting for nonpension benefits from issues relating to pensions; thus, it would be difficult to measure the market impact of the new possible accounting rule exclusively for nonpension benefits. Market reaction to these documents could be due to the possibility of a proposed accounting rule for pension as well as nonpension benefits. Therefore, this study deals with events beginning with the FASB's News Release of its intention to pursue a separate project for retiree benefits, which also suggested strong preference for accrual accounting. Other events were compiled from the Wall Street Journal Index and News Releases of the FASB. A chronology of accounting policy events indicating the accounting change for nonpension benefits is shown in table 11.

Table 11. Chronology of Accounting Policy Events

Event No.	Dates and description
1.	February 8, 1984 The FASB announces a separate project for nonpension benefits for its measurement and recognition using accrual basis. (FASB's News Release)
2.	July 5, 1984 The FASB proposes a rule to require certain disclosure about postretirement health care and life insurance benefits. (Exposure Draft for disclosure requirement)
3.	November 12, 1984 The FASB requires firms to disclose information on the benefits above. (Statement No. 81)
4.	October 22, 1985 (Labor letter of Wall Street Journal) Retiree health benefits may be threatened as the aggregate unfunded liability grows.
5.	April 10, 1987 Technical Bulletin 87-1 provides guidance on changing accounting method for certain retirement benefits.
6.	November 17, 1987 (Labor letter of Wall Street Journal) Retiree health benefits could affect corporate well-being.
7.	May 8, 1988 The FASB is moving closer to requiring that a reserve for future retiree health benefits charged against earnings, replacing the current pay-as-you-go method.
8.	August 17, 1988 The FASB will soon propose a rule requiring firms to recognize liability for retiree health care and life insurance benefits

5.3.3. Methodology for test statistics

The first and second hypotheses are tested by applying an event-type methodology similar to that described in Dodd and Warner (1983), Travlos (1987), and Haw, Pastena, and Lilien (1990). Abnormal security returns are defined as residuals from a single factor market model of the following form using data from the 1989 CRSP Daily Returns File:

$$R_{it} = a_i + b_i R_{mt} + e_{it}$$

where:

R_{it} = rate of return for security i in period t,

R_{mt} = rate of return in period t on the CRSP value weighted market index,

e_{it} = abnormal return on security i in period t,

a_i, b_i = the intercept and slope coefficients specific to security i which are estimated.

The parameters, a_i and b_i, were estimated based on a 200-day period prior to day -10 from the first event date. Then, daily residual returns, e_{it}, are computed for the period starting 10 days prior and ending 10 days after each event date. The abnormal returns, e_{it}, are

$$e_{it} = R_{it} - a_i - b_i R_{mt}, \qquad t = -10, \ldots, +10$$

The residuals are averaged across the sample firms to form average abnormal returns of ±10 days around each event date. The average abnormal return (AR_t) for each day t for a sample of N firms is defined as follows:

$$AR_t = \frac{1}{N} \sum_{i=1}^{N} e_{it}$$

These averages are then accumulated to capture more fully the immediate market adjustments associated with the events. The cumulative average abnormal returns ($CAR_{(p,q)}$) are derived by accumulating the AR_t's over various intervals from p to q days:

$$CAR_{(p,q)} = \frac{1}{N} \sum_{t=p}^{q} AR_t$$

where $(p,q)=(-1,0),(-1,+1),(-2,+1),(-2,+2)$

The average abnormal return and cumulative average abnormal returns are tested as to whether they are different from zero, based on the following standardization process due to cross-sectional dependence of residuals during the test period. The test statistics of Z_t and $Z_{(p,q)}$, which follows a unit-normal distribution [Dodd and Warner (1983)], are based on the standardized average abnormal return (SAR_t) and the standardized cumulative average abnormal return ($SCAR_{(p,q)}$), respectively,

where,

$$Z_t = N^{\frac{1}{2}} * SAR_t \quad \text{and} \quad Z_{(p,q)} = \frac{N^{\frac{1}{2}}}{(q-p+1)^{\frac{1}{2}}} \sum_{t=p}^{q} SCAR_t$$

$$SAR_t = \frac{1}{N} \sum_{i=1}^{N} \frac{e_{it}}{S_{it}} \quad \text{and} \quad SCAR_t = \sum_{t=p}^{q} SAR_t$$

where S_{it} is the square root of firm i's estimated forecast variance and is equivalent to the following [Patell (1976)]:

$$S_{it} = [s_i^2 \{1 + \frac{1}{T} + \frac{(R_{mt} - \bar{R}_m)^2}{\sum_{r=1}^{T} (R_{mr} - \bar{R}_m)^2}\}]^{\frac{1}{2}}$$

where,

s_i^2 = the residual variance for firm i's market model regression,

T = number of days in estimation period,

R_{mr} = market return for r-th day of the estimation period,

$\bar{R}_m$ = average market return during the estimation period.

To compare the abnormal returns between two different portfolios - providers and nonproviders, the daily mean differences are derived by subtracting the associated average abnormal returns. The appropriate Z-statistics is:

$$Z = \frac{SAR_1 - SAR_2}{(1/N_1 + 1/N_2)^{\frac{1}{2}}}$$

where N_1 and N_2 represent the number of observations in each portfolio. [Haw, Pastena, and Lilien (1990)]

For the comparison of the cumulative abnormal returns between portfolios, the appropriate Z-statistics is analogously computed as follows:

$$Z = \frac{SCAR_1 - SCAR_2}{(1/N_1 + 1/N_2)^{\frac{1}{2}}}$$

In addition to the comparison of the standardized returns, mean difference t-test is done for the non-standardized returns for comparison.

5.3.4. Methodology for event period regressions

As independent variables, current health care and life insurance benefits expenses, proxy for future income effects, are searched in the footnotes of annual reports from 1983 to

1988. Sales per employees is used as a proxy for labor productivity. A dummy variable is used to identify the firms' industry membership (i.e., whether or not firms are in mature industries such as steel, metal sheets, and auto). Free cash flow, as a proxy for financial slack, is measured in the same way in chapter 4. Closeness to debt constraints or leverage ratio is surrogated by firms' debt-equity ratio which is used in chapter 4.

To test hypotheses (from H_3 to H_7) developed, a cross-sectional multiple regression of the following form is estimated by using ordinary least squares (OLS) and generalized-method-of-moments (GMM) estimator for the event t which shows a statistically significant market reaction. Firm subscript i is omitted for simplicity.

$$CAR_{(p,q)t} = b_0 - b_1 EXPMV_t + b_2 LSPEMP_t + b_3 FCFMV_t - b_4 DERATIO_t - b_5 INDUS_t + v_t$$

where:

$CAR_{(p,q)}$ = cumulative abnormal returns over the interval (p,q) for event t,

EXPMV = current cash expense for retiree benefits scaled by firm's market value, [Christie (1987)]

LSPEMP = natural log of sales per employee,

FCFMV = free cash flow, measured as cash from operations minus capital expenditure and dividends payment, scaled by firm's market value,

DERATIO = leverage measured as total debt-to-total equity,

INDUS = dummy variable for industry membership 1 for basic and 0 for others,

b_{0-5} = regression coefficients,

v = random error term.

Although many studies have used OLS to explain the capital market effects observed, OLS regression has a limitation in its assumptions that all firms have the same variance of excess returns (homoskedasticity) and stock returns are not contemporaneously correlated (cross-sectional independence). Previous literature provides mixed predictions about the seriousness of bias that would arise when cross-sectional dependence in the data is ignored. However, Bernard (1987) indicates bias in the standard errors of regression coefficients which may be large enough to influence inferences in two cases about the incremental information content of historical cost income and cash flows vs. accruals.

Generalized method of moments (GMM) estimation, pioneered by Hansen (1982), can solve the problems by making sample analogues of population orthogonality conditions close to zero, which means expected cross products of unobservable disturbances and functions of observable variables are equated to zero. The unobservable disturbances in the orthogonality conditions can be replaced by an equivalent expression involving the true parameter vector and the observed variables. A GMM estimator of the true parameter vector is obtained by finding the element of the parameter space that sets linear combinations of the sample

cross products as close to zero as possible. [Hansen (1982)][46]

Froot (1989) provides two techniques to account for contemporaneous correlation and heteroskedasticity in the cross section. The first technique, which combines elements of method-of-moments estimation and the treatment of heteroskedasticity introduced by White (1980), is consistent and asymptotically efficient within the class of one-step estimators. The second technique uses a two-step instrumental variable estimator to have greater asymptotic efficiency. This study uses the straight-forward GMM approach, introduced by Hansen (1982).

In summary, the ability to permit both contemporaneous correlation and unrestricted heteroskedasticity is an important advantage of GMM over generalized least square techniques (such as seemingly unrelated regressions or multivariate regressions). A GMM estimator reestimates the standard error of coefficients with instrumental variables considering residual correlation while maintaining OLS regression coefficients.

5.4. Small sample test

The similar methodology in cross-sectional test is replicated with smaller number of sample firms with estimated financial effect, which was computed by an analyst's formula. (See appendix C.) Thus, it will directly test whether the estimated financial effect can explain the market reactions or

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[46] He also proved that the GMM estimator is strongly consistent and asymptotically efficient.

improve the original model with such a proxy variable as current retiree expenses. In addition to cross-sectional regression test, univariate Pearson correlations and Spearman rank correlations are investigated between the market reaction around the most recent event and the estimated financial effect.

5.5. Empirical results

5.5.1. Test results of event studies

This section investigates whether the observed security market reaction is consistent with the first two research hypotheses. To test the hypotheses, table 12 presents cumulative abnormal returns during various days around the eight events which were related to accounting issues for retiree benefits.

Based on the traditional t-statistics in table 12, provider group had significantly negative abnormal returns around events 1, 2, 4, 7, and 8 while it had very few abnormal returns around events 3, 5, and 6. However, the inference based on the variance around the event periods might be wrong for the contemporaneous correlation because the events are assumed to occur during the same periods for all firms. [Bernard (1987)] Therefore, standardized cumulative abnormal returns around the events are presented for comparison in table 13.

Table 12. Cumulative Abnormal Returns Between Providers and Nonproviders

Event		Providers(P)		Nonproviders(N)		Mean Diff.
(#firms)		Returns	t-stat	Returns	t-stat	(t-value)
1. 840208	CAR2	-0.75%	-3.94[a]	-0.06%	-0.26	-2.38[a]
(P=205)	CAR3	-0.91	-4.66[a]	-0.47	-1.65[c]	-1.29[c]
(N=141)	CAR4	-1.20	-4.84[a]	-0.72	-2.33[b]	-1.21
	CAR5	-1.31	-5.05[a]	-0.20	-0.52	-2.39[a]
2. 840705	CAR2	-0.34	-2.36[a]	0.34	1.73[c]	-2.85[a]
(P=219)	CAR3	-0.42	-2.54[a]	0.48	2.28[a]	-3.38[a]
(N=150)	CAR4	-0.65	-3.35[a]	0.15	0.52	-2.35[a]
	CAR5	-0.99	-4.43[a]	-0.51	-1.64	-1.30[c]
3. 841112	CAR2	-0.03	-0.22	0.38	2.59[a]	-2.09[b]
(P=215)	CAR3	0.02	0.14	0.62	3.28[a]	-2.42[a]
(N=148)	CAR4	0.26	1.38[c]	0.94	4.44[a]	-2.33[b]
	CAR5	0.12	0.64	0.68	2.52[b]	-1.68[b]
4. 851022	CAR2	-0.45	-3.07[a]	-0.31	-1.52	-0.53
(P=205)	CAR3	-0.82	-4.60[a]	-0.32	-1.15	-1.53[c]
(N=143)	CAR4	-0.83	-3.98[a]	-0.18	-0.56	-1.73[b]
	CAR5	-0.92	-4.29[a]	0.00	0.00	-2.29[b]
5. 870410	CAR2	-0.03	-0.21	0.17	0.97	-0.88
(P=214)	CAR3	-0.14	-0.68	0.33	1.31	-1.46[c]
(N=148)	CAR4	0.00	-0.12	0.30	1.01	-0.80
	CAR5	-0.38	-1.41[c]	0.02	0.06	-0.87
6. 871117	CAR2	-0.15	-0.77	0.29	1.03	-1.28
(P=212)	CAR3	0.03	0.13	0.10	0.31	-0.18
(N=146)	CAR4	0.23	0.86	0.58	1.67[c]	-0.80
	CAR5	0.56	1.84[b]	0.68	1.68[c]	-0.24
7. 880509	CAR2	-0.11	-0.80	-0.27	-1.62	0.78
(P=215)	CAR3	-0.39	-2.56[a]	-0.24	-1.09	-0.56
(N=139)	CAR4	-0.49	-2.68[a]	0.00	0.20	-1.67[b]
	CAR5	-0.69	-3.49[a]	0.08	0.27	-2.17[b]
8. 880817	CAR2	-0.43	-2.67[a]	-0.38	-2.33[b]	-0.22
(P=219)	CAR3	-0.49	-2.63[a]	-0.28	-1.49	-0.79
(N=143)	CAR4	-0.52	-2.70[a]	-0.59	-2.96[a]	0.59
	CAR5	-0.38	-1.87[b]	-0.30	-1.15	0.05

* a: significant at less than 1%.
  b: significant at less than 5%.
  c: significant at less than 10%.
  (based on one-taied test)

Table 12. (continued)

** CAR2: Cumulative abnormal returns from -1 to 0 day.
CAR3: Cumulative abnormal returns from -1 to +1 day.
CAR4: Cumulative abnormal returns from -2 to +1 day.
CAR5: Cumulative abnormal returns from -2 to +2 day

Table 13. Standardized Cumulative Abnormal Returns Between Providers and Nonproviders

Event (#firms)		Providers(P) Returns	Z	Nonproviders(N) Returns	Z	Mean Diff. (Z-value)
1. 840208	SCAR2	-0.480	-4.86[a]	-0.058	-0.49	-3.86[a]
(P=205)	SCAR3	-0.595	-4.91[a]	-0.252	-1.73[c]	-3.14[a]
(N=141)	SCAR4	-0.749	-5.37[a]	-0.372	-2.21[b]	-3.45[a]
	SCAR5	-0.839	-5.37[a]	-0.225	-1.19	-5.62[a]
2. 840705	SCAR2	-0.174	-1.82[b]	0.153	1.32	-3.08[a]
(P=219)	SCAR3	-0.220	-1.88[b]	0.225	1.59	-4.20[a]
(N=150)	SCAR4	-0.369	-2.73[a]	0.048	0.30	-3.93[a]
	SCAR5	-0.532	-3.52[a]	-0.282	-1.54	-2.36[a]
3. 841112	SCAR2	-0.021	-0.22	0.224	1.92[c]	-2.29[b]
(P=215)	SCAR3	-0.007	-0.06	0.333	2.34[b]	-3.18[a]
(N=148)	SCAR4	0.118	0.87	0.499	3.03[a]	-3.56[a]
	SCAR5	0.054	0.36	0.371	2.02[b]	-2.96[a]
4. 851022	SCAR2	-0.353	-3.57[a]	-0.183	-1.54	-1.56[c]
(P=205)	SCAR3	-0.591	-4.89[a]	-0.211	-1.46	-3.49[a]
(N=143)	SCAR4	-0.573	-4.11[a]	-0.176	-1.05	-3.64[a]
	SCAR5	-0.669	-4.49[a]	-0.051	-0.27	-5.67[a]
5. 870410	SCAR2	-0.064	-0.66	0.175	1.51	-2.23[b]
(P=214)	SCAR3	-0.119	-1.00	0.226	1.59	-3.23[a]
(N=148)	SCAR4	-0.044	-0.32	0.192	1.17	-2.21[b]
	SCAR5	-0.238	-1.56[c]	-0.009	-0.05	-2.31[b]
6. 871117	SCAR2	-0.019	-0.18	0.163	1.39	-1.69[b]
(P=212)	SCAR3	-0.056	-0.47	0.108	0.76	-1.52[c]
(N=146)	SCAR4	0.142	1.03	0.281	1.70[c]	-1.29[c]
	SCAR5	0.308	2.00[b]	0.319	1.73[c]	-0.11
7. 880509	SCAR2	-0.071	-0.74	-0.115	-0.96	0.41
(P=215)	SCAR3	-0.181	-1.54[c]	-0.102	-0.69	-0.73
(N=139)	SCAR4	-0.227	-1.67[b]	0.005	0.03	-2.13[b]
	SCAR5	-0.319	-2.10[b]	-0.007	-0.04	-2.88[a]
8. 880817	SCAR2	-0.153	-1.61[c]	-0.144	-1.22	-0.09
(P=219)	SCAR3	-0.169	-1.44[c]	-0.102	-0.70	-0.62
(N=143)	SCAR4	-0.185	-1.47[c]	-0.219	-1.31	0.20
	SCAR5	-0.147	-1.06	-0.127	-0.68	-0.31

* a,b, and c: same definition as in table 12, but based on two-tailed test.

** SCAR2: Standardized cumulative abnormal returns from -1 to 0 day.
SCAR3: Standardized cumulative abnormal returns from -1 to +1 day.
SCAR4: Standardized cumulative abnormal returns from -2 to +1 day.

SCAR5: Standardized cumulative abnormal returns from -2 to +2 day.

Based on the computed Z-statistics, providers had significantly negative abnormal returns around events 1, 2, and 4 while very few abnormal returns were observed around events 3, 5, and 6. For events 7 and 8, providers experienced relatively weak abnormal returns. Both tables are very consistent for the events which did not show any abnormal performances. However, the significance level is drastically dropped for the last two events when considering standardized abnormal returns. There is no clear-cut explanation about the market behavior except that the market had already been responded by previous events.

In summary, the market initially made much of the FASB's decision of pursuing separate project for retiree benefits from pension accounting (event 1). Also, it is believed that providers are affected by the exposure draft for disclosure requirement (event 2) and the first Labor Letter about the unfunded liability written on the Wall Street Journal (event 4).

For the group not providing retiree benefits, the abnormal returns are presented in tables 12 and 13, also. Test statistic is based on two-tailed test because it is hypothesized that there are no abnormal returns in its alternative hypothesis. Very few abnormal returns were observed in both tables except the case of event 3, which is a disclosure requirement, Statement No. 81. It is unknown why the non-provider portfolio had positively significant abnormal returns for the event. In general, hypothesis 2 in its alternative form is accepted for

the other seven events.

Two portfolio groups' market performance is compared using both mean difference t-test and unit normal test using Z-statistics explained in section 5.3.3. Table 13 shows that for most events, Z-statistics are significantly different except event 8. Both groups' firm characteristics are compared through years in table 14. Most of the variables are used in the regression model.

Table 14. Firm Characteristics Between Providers and Nonproviders

Variable	Providers		Nonproviders		Mean Difference
	Mean	Std Dev.	Mean	Std Dev.	(t-value)
LSPEMP84	-2.199	0.592	-2.353	0.703	2.26[b]
LSPEMP85	-2.182	0.573	-2.333	0.714	2.21[b]
LSPEMP86	-2.132	0.537	-2.307	0.697	2.69[a]
LSPEMP87	-2.048	0.565	-2.231	0.671	2.85[a]
LSPEMP88	-1.941	0.544	-2.119	0.767	2.49[a]
NUMEMP84	47.715	79.013	18.394	31.769	5.10[a]
NUMEMP85	47.879	80.927	19.441	35.644	5.15[a]
NUMEMP86	46.646	83.834	20.192	37.438	4.26[a]
NUMEMP87	45.653	79.828	20.549	38.653	4.18[a]
NUMEMP88	45.725	79.121	22.142	43.226	3.78[a]
FCFMV84	-0.019	0.353	-0.023	0.391	0.12
FCFMV85	-0.078	0.685	0.021	0.342	-1.89[b]
FCFMV86	-0.001	0.336	-0.052	0.300	1.55[c]
FCFMV87	0.039	0.451	-0.055	0.355	2.33[a]
FCFMV88	-0.162	1.066	-0.013	1.401	-1.12
DERATIO84	1.556	7.862	1.318	2.907	0.43
DERATIO85	1.277	1.380	1.274	1.599	0.02
DERATIO86	1.413	1.669	1.371	1.998	0.22
DERATIO87	1.396	2.103	1.495	2.209	-0.45
DERATIO88	1.390	1.338	1.449	2.050	-0.32

* a: significant at less than 1%.
  b: significant at less than 5%.
  c: significant at less than 10%.
  (based on one-taied test)

** Definition of variables

LSPEMP = natural log of sales per employee,

NUMEMP = number of employees,

FCFMV = free cash flow, measured as cash from operations minus capital expenditure and dividends payment, scaled by firm's market value,

DERATIO = leverage measured as total debt-to-total equity,

(Numbers after the variable names indicate fiscal year in which the data was drawn.)

Relatively large firms with more employees provide them with retiree benefits. Also, their labor productivity (i.e., sales per employee) is significantly higher than the non-provider group's. There is no significant difference in leverage ratio. For the free cash flow, there is no consistent difference between two groups.

5.5.2. Test results of cross-sectional analysis

The cross-sectional analysis is done only for the events with significant negative abnormal returns because it attempts to explain the economic determinants of the abnormal stock returns.

Table 15 presents descriptive statistics of variables used in the cross-sectional regression model for the significant events.

Table 15. Descriptive Statistics of Variables - Market Model

Variable	Number	Mean	Std Dev	Minimum	Maximum
**********	For Event 1			**********	
CAR2	205	-0.754%	0.027	-13.8%	7.4%
CAR3	205	-0.914	0.028	-10.9	6.3
CAR4	205	-1.196	0.035	-13.2	8.0
EXPMV	178	0.014	0.052	0.000	0.598
LSPEMP	203	-2.305	0.555	-3.258	0.289
FCFMV	205	-0.028	0.369	-2.986	3.249
DERATIO	205	0.982	0.625	0.000	5.122
INDUS	205	0.215	0.412	0	1
**********	For Event 2			**********	
CAR2	219	-0.336%	0.021	-9.7%	4.8%
CAR3	219	-0.425	0.025	-13.3	7.6
CAR4	219	-0.652	0.029	-15.2	9.1
EXPMV	190	0.014	0.050	0.000	0.598
LSPEMP	218	-2.266	0.613	-3.258	0.289
FCFMV	219	-0.026	0.362	-2.986	3.249
DERATIO	219	1.001	0.661	0.000	5.122
INDUS	219	0.210	0.408	0	1
**********	For Event 4			**********	
CAR2	205	-0.447%	0.021	-7.9%	8.2%
CAR3	205	-0.817	0.025	-7.8	11.7
CAR4	205	-0.828	0.030	-11.4	12.3
EXPMV	200	0.009	0.029	0.000	0.377
LSPEMP	204	-2.193	0.558	-3.121	0.424
FCFMV	205	-0.054	0.459	-5.135	0.641
DERATIO	205	1.241	1.275	0.000	13.646
INDUS	205	0.234	0.425	0	1
**********	For Event 7			**********	
CAR2	215	-0.108%	0.020	-5.6%	8.7%
CAR3	215	-0.388	0.022	-6.9	6.8
CAR4	215	-0.489	0.027	-8.5	7.2
EXPMV	213	0.012	0.048	0.000	0.507
LSPEMP	215	-2.042	0.565	-3.132	0.323
FCFMV	215	0.049	0.336	-0.914	2.183
DERATIO	215	1.435	2.191	0.000	29.406
INDUS	215	0.237	0.426	0	1

Table 15. Descriptive Statistics of Variables (continued)

Variable	Number	Mean	Std Dev	Minimum	Maximum
**********	For Event 8			**********	
CAR2	219	-0.426%	0.024	-17.3%	11.4%
CAR3	219	-0.489	0.028	-17.1	9.4
CAR4	219	-0.524	0.029	-17.1	7.2
EXPMV	217	0.022	0.119	0.000	1.317
LSPEMP	217	-1.945	0.550	-2.967	0.296
FCFMV	219	-0.162	1.066	-9.730	5.815
DERATIO	219	1.389	1.351	0.000	10.381
INDUS	219	0.242	0.429	0	1

* Explanation of variables

CAR2 = cumulative abnormal returns from -1 to 0 day for each event,

CAR3 = cumulative abnormal returns from -1 to +1 day for each event,

CAR4 = cumulative abnormal returns from -2 to +1 day for each event,

EXPMV = current cash expense for retiree benefits scaled by firm's market value,

LSPEMP = natural log of sales per employee,

FCFMV = free cash flow, measured as cash from operations minus capital expenditure and dividends payment, scaled by firm's market value,

DERATIO = leverage measured as total debt-to-total equity,

INDUS = dummy variable for industry membership 1 for steel, metal sheets and auto, and 0 for others,

Although events 7 and 8 show relatively weak market reactions, their regression results are also reported. Most of explanatory variables are relatively stable through the test years, but sales per employee (LSPEMP) and leverage ratio (DERATIO) tend to increase while free cash flow (FCFMV) has some fluctuations.

Table 16 reports Pearson correlation among all variables used in the model.

Table 16. Pearson Correlation Coefficients - Market Model

**********	For Event 1							
	CAR2	CAR3	CAR4	EXPMV	LSPEMP	FCFMV	DERATIO	INDUS
CAR2	1.00	0.76[a]	0.61[a]	-0.03	0.06	0.22[a]	-0.13[c]	0.00
CAR3		1.00	0.84[a]	-0.13[c]	0.02	0.09	-0.19[a]	-0.14[b]
CAR4			1.00	-0.13[c]	0.01	0.13[c]	-0.25[a]	-0.17[b]
EXPMV				1.00	-0.01	0.36[a]	0.28[a]	0.23[a]
LSPEMP					1.00	-0.11	-0.02	-0.14[b]
FCFMV						1.00	-0.13[c]	-0.11
DERATIO							1.00	0.17[b]
INDUS								1.00

Table 16. Pearson Correlation Coefficients - Market Model (Continued)

********** For Event 2 **********

	CAR2	CAR3	CAR4	EXPMV	LSPEMP	FCFMV	DERATIO	INDUS
CAR2	1.00	0.85[a]	0.81[a]	-0.07	-0.19[a]	-0.05	-0.11[c]	-0.02
CAR3		1.00	0.86[a]	-0.08	-0.17[b]	0.00	-0.08	-0.07
CAR4			1.00	0.00	-0.14[b]	0.08	-0.14[b]	-0.03
EXPMV				1.00	-0.02	0.36[a]	0.22[a]	0.22[a]
LSPEMP					1.00	-0.09	0.04	-0.14[b]
FCFMV						1.00	-0.11	-0.07
DERATIO							1.00	0.12[c]
INDUS								1.00

********** For Event 4 **********

	CAR2	CAR3	CAR4	EXPMV	LSPEMP	FCFMV	DERATIO	INDUS
CAR2	1.00	0.80[a]	0.67[a]	-0.09	-0.11	0.03	0.05	-0.06
CAR3		1.00	0.85[a]	-0.14[b]	-0.08	0.05	0.09	-0.13[c]
CAR4			1.00	-0.15[b]	-0.06	0.03	0.07	-0.07
EXPMV				1.00	0.03	-0.69[a]	-0.04	0.25[a]
LSPEMP					1.00	-0.03	0.11	-0.10
FCFMV						1.00	-0.17[b]	-0.11
DERATIO							1.00	0.12[c]
INDUS								1.00

Table 16. Pearson Correlation Coefficients - Market Model (Continued)

********** For Event 7 **********

	CAR2	CAR3	CAR4	EXPMV	LSPEMP	FCFMV	DERATIO	INDUS
CAR2	1.00	0.80[a]	0.69[a]	-0.09	0.13[c]	0.01	0.04	0.00
CAR3		1.00	0.85[a]	-0.10	0.12[c]	-0.01	-0.02	0.00
CAR4			1.00	-0.13[c]	0.12[c]	0.07	-0.03	-0.02
EXPMV				1.00	0.03	0.58[a]	-0.02	0.28[a]
LSPEMP					1.00	0.09	0.01	-0.12[c]
FCFMV						1.00	-0.23[a]	0.18[a]
DERATIO							1.00	0.12[c]
INDUS								1.00

********** For Event 8 **********

	CAR2	CAR3	CAR4	EXPMV	LSPEMP	FCFMV	DERATIO	INDUS
CAR2	1.00	0.84[a]	0.77[a]	-0.38[a]	0.00	-0.20[a]	0.09	-0.10
CAR3		1.00	0.92[a]	-0.30[a]	0.06	-0.20[a]	0.02	-0.11
CAR4			1.00	-0.32[a]	0.06	-0.23[a]	-0.01	-0.10
EXPMV				1.00	-0.05	0.22[a]	-0.10	0.14[b]
LSPEMP					1.00	-0.00	0.07	-0.11
FCFMV						1.00	-0.04	-0.06
DERATIO							1.00	0.09
INDUS								1.00

* a: significant at less than 1%.
  b: significant at less than 5%.
  c: significant at less than 10%.
  (based on two-tailed test)
** See table 15 for the definition of variables.

It seemed that there was a relatively high pairwise correlation between current expense (EXPMV) and free cash flow (FCFMV) in all events tested. However, the inference from the regression does not change even when the correlation is considered.

The OLS and GMM cross-sectional regressions for providers are shown in tables 17 and 18, respectively. As it was known, both estimation show the same individual coefficients, adjusted R^2, and the F-value of the regression equation but different level of significance (t-statistics) for individual coefficients.

Table 17. Results of Cross-sectional Regression Analysis - Market Model

$$CAR_{(p,q)t} = b_0 - b_1 EXPMV_t + b_2 LSPEMP_t + b_3 FCFMV_t - b_4 DERATIO_t - b_5 INDUS_t + v_t$$

Dependent Variable	Coefficient b_1	b_2	b_3	b_4	b_5	Adj. R^2	F-Stat
(Event 1)							
CAR2	0.058	0.004	0.019	0.007	-0.595	7.30%	3.75[a]
	(1.23)	(0.99)	(3.13)[a]	(1.83)[b]	(1.15)		
CAR3	0.073	0.000	0.010	0.006	0.004	4.18%	2.53[b]
	(1.59)[c]	(0.06)	(1.74)[b]	(1.51)[c]	(0.75)		
CAR4	0.098	0.001	0.018	0.007	0.007	7.59%	3.88[a]
	(1.75)[b]	(0.17)	(2.58)[a]	(1.58)[c]	(1.09)		
(Event 2)							
CAR2	0.014	-0.007	-0.003	0.003	0.000	2.65%	2.02[c]
	(0.41)	(2.72)[a]	(0.76)	(1.10)	(0.00)		
CAR3	0.035	-0.007	0.000	0.002	0.002	1.51%	1.58
	(0.84)	(2.33)[a]	(0.08)	(0.80)	(0.35)		
CAR4	0.001	-0.005	0.005	0.005	0.000	0.65%	1.25
	(0.02)	(1.47)[c]	(0.80)	(1.44)[c]	(0.03)		

Table 17. Results of Cross-sectional Regression Analysis (continued)

$$CAR_{(p,q)t} = b_0 - b_1 EXPMV_t + b_2 LSPEMP_t + b_3 FCFMV_t - b_4 DERATIO_t - b_5 INDUS_t + v_t$$

Dependent Variable	Coefficient b_1	b_2	b_3	b_4	b_5	Adj. R^2	F-Stat
(EVENT 4)							
CAR2	0.063	-0.005	-0.001	0.001	0.004	0.41%	1.16
	(0.84)	(1.68)[b]	(0.29)	(0.75)	(1.09)		
CAR3	0.119	-0.005	-0.003	0.002	0.008	2.93%	2.20[c]
	(1.31)[c]	(1.41)[c]	(0.48)	(1.31)[c]	(1.91)[b]		
CAR4	0.211	-0.003	-0.007	0.001	0.004	1.25%	1.50
	(1.96)[b]	(0.84)	(1.04)	(0.70)	(0.74)		
(EVENT 7)							
CAR2	0.062	0.005	0.006	0.000	-0.001	1.21%	1.52
	(1.75)[b]	(1.97)[b]	(1.11)	(0.81)	(0.35)		
CAR3	0.070	0.005	0.004	0.000	-0.003	0.80%	1.34
	(1.76)[b]	(1.87)[b]	(0.64)	(0.25)	(0.73)		
CAR4	0.148	0.006	0.017	0.000	-0.002	4.23%	2.87[b]
	(3.11)[a]	(1.78)[b]	(2.44)[a]	(0.06)	(0.43)		
(EVENT 8)							
CAR2	0.067	-0.001	-0.003	-0.001	0.004	14.8%	8.46[a]
	(5.19)[a]	(0.43)	(1.86)[b]	(0.78)	(1.15)		
CAR3	0.060	0.002	-0.004	0.000	0.005	9.6%	5.57[a]
	(3.85)[a]	(0.65)	(2.10)[b]	(0.24)	(1.11)		
CAR4	0.064	0.002	-0.005	0.001	0.004	11.5%	6.60[a]
	(4.01)[a]	(0.69)	(2.64)[a]	(0.77)	(1.02)		

* a: significant at less than 1%.
  b: significant at less than 5%.
  c: significant at less than 10%.
  (based on one-tailed test)

** See table 15 for the definition of variables.

Table 18. Results of Generalized Method of Moments Estimation - Market Model

$$CAR_{(p,q)t} = b_0 - b_1 EXPMV_t + b_2 LSPEMP_t + b_3 FCFMV_t - b_4 DERATIO_t - b_5 INDUS_t + v_t$$

Dependent Variable	Coefficient b_1	b_2	b_3	b_4	b_5	Adj. R^2	F-Stat
(Event 1)							
CAR2	0.058	0.004	0.019	0.007	-0.595	7.30%	3.75[a]
	(0.84)	(1.29)	(2.31)[b]	(1.90)[b]	(1.32)[c]		
CAR3	0.073	0.000	0.010	0.006	0.004	4.18%	2.53[b]
	(1.40)[c]	(0.07)	(1.43)[c]	(1.37)[c]	(0.87)		
CAR4	0.098	0.001	0.018	0.007	0.007	7.59%	3.88[a]
	(1.77)[b]	(0.21)	(2.35)[b]	(1.39)[c]	(1.23)		
(Event 2)							
CAR2	0.014	-0.007	-0.003	0.003	0.000	2.65%	2.02[c]
	(0.53)	(2.26)[b]	(0.91)	(0.70)	(0.00)		
CAR3	0.035	-0.007	0.000	0.002	0.002	1.51%	1.58
	(1.34)	(2.35)[a]	(0.11)	(0.59)	(0.29)		
CAR4	0.001	-0.005	0.005	0.005	0.000	0.65%	1.25
	(0.03)	(1.81)[b]	(0.80)	(1.29)[c]	(0.02)		
(EVENT 4)							
CAR2	0.063	-0.005	-0.001	0.001	0.004	0.41%	1.16
	(0.79)	(1.32)[c]	(0.28)	(0.60)	(0.91)		
CAR3	0.119	-0.005	-0.003	0.002	0.008	2.93%	2.20[c]
	(1.26)	(0.93)	(0.47)	(1.09)	(1.70)[b]		
CAR4	0.211	-0.003	-0.007	0.001	0.004	1.25%	1.50
	(1.35)[c]	(0.68)	(0.83)	(0.50)	(0.58)		
(EVENT 7)							
CAR2	0.062	0.005	0.006	0.000	-0.001	1.21%	1.52
	(2.31)[b]	(2.00)[b]	(1.24)	(1.38)	(0.30)		
CAR3	0.070	0.005	0.004	0.000	-0.003	0.80%	1.34
	(2.23)[b]	(2.10)[b]	(0.61)	(0.32)	(0.67)		
CAR4	0.148	0.006	0.017	0.000	-0.002	4.23%	2.87[b]
	(3.81)[a]	(2.03)[b]	(2.15)[a]	(0.16)	(0.41)		

Table 18. Results of Generalized Method of Moments Estimation (continued)

$$CAR_{(p,q)t} = b_0 - b_1 EXPMV_t + b_2 LSPEMP_t + b_3 FCFMV_t - b_4 DERATIO_t - b_5 INDUS_t + v_t$$

Dependent Variable	Coefficient b_1	b_2	b_3	b_4	b_5	Adj. R^2	F-Stat
(EVENT 8)							
CAR2	0.067	-0.001	-0.003	-0.001	0.004	14.8%	8.46[a]
	(1.93)[b]	(0.51)	(1.27)	(0.65)	(1.13)		
CAR3	0.060	0.002	-0.004	0.000	0.005	9.6%	5.57[a]
	(1.83)[b]	(0.70)	(1.27)	(0.20)	(1.06)		
CAR4	0.064	0.002	-0.005	0.001	0.004	11.5%	6.60[a]
	(2.55)[a]	(0.76)	(2.46)[a]	(0.76)	(1.01)		

* a: significant at less than 1%.
  b: significant at less than 5%.
  c: significant at less than 10%.
  (based on one-tailed test)

** See table 15 for the definition of variables.

As shown in the section 5.3.4., various cumulative abnormal returns are used as a dependent variable, i.e., CAR2, CAR3, and CAR4. Only events 1 and 8 show the consistent significance in regression equation (F-value) with these different CARs.

The first hypothesis, future income effect, is supported in event 1, 4, 7, and 8. The second hypothesis, labor productivity, is rarely supported in any events except event 7. In events 2 and 4, the variable carries a different sign, which means the strong rejection of the hypothesis. The third hypothesis, financial slack or capital availability, is strongly supported in event 1. However, the variable carries a different

sign in event 8, which makes the inference difficult. The fourth hypothesis, different industry group, is tested in both univariate and multivariate. The univariate mean difference test is shown in table 19.

Table 19. Comparison of Returns Between Two different Industry Groups

	Mature Industry Mean	Std Dev.	Other Industry Mean	Std Dev.	Mean Diff. (t-value)
Event 1					
CAR2	-0.76%	0.031	-0.75%	0.026	-0.02
CAR3	-1.68	0.028	-0.71	0.028	-2.04[b]
CAR4	-2.31	0.036	-0.89	0.035	-2.38[a]
#Firms	44		161		
Event 2					
CAR2	-0.41	0.025	-0.32	0.020	-0.25
CAR3	-0.75	0.034	-0.34	0.022	-0.80
CAR4	-0.81	0.040	-0.61	0.025	-0.31
#Firms	46		173		
Event 4					
CAR2	-0.70	0.026	-0.37	0.019	-0.82
CAR3	-1.43	0.028	-0.63	0.024	-1.92[b]
CAR4	-1.19	0.036	-0.72	0.028	-0.83
#Firms	48		157		
Event 7					
CAR2	-0.14	0.024	-0.10	0.018	-0.12
CAR3	-0.38	0.026	-0.39	0.021	0.04
CAR4	-0.59	0.030	-0.46	0.026	-0.30
#Firms	51		164		
Event 8					
CAR2	-0.86	0.018	-0.29	0.025	-1.83[b]
CAR3	-1.01	0.022	-0.32	0.022	-1.81[b]
CAR4	-1.05	0.024	-0.23	0.027	-1.96[b]
#Firms	53		166		

* a: significant at less than 1%.
  b: significant at less than 5%.
  c: significant at less than 10%.
  (based on one-tailed test)

** See table 15 for the definition of variables.

The firms in mature industries have significantly different returns (i.e., more negative CARs) in events 1, 4 and 8. However, the regression results in tables 17 and 18 do not provide any significance level except the CAR3 in event 4. The last hypothesis about the debt contracts is not consistently supported in any events except event 1.

In summary, no coefficient is consistently significant across all regressions, although the EXPMV is significant with more frequency than any other coefficient. In both tables 17 and 18, the regression model having the highest explanatory power is event 8. The result shows that most of the explanatory power originates from the variable EXPMV, suggesting that current expenses were more recognized when it became more probable that the FASB propose a new accounting rule that requires providers to recognize liability for retiree benefits.

Also, it is found that three hypotheses- future income effect, capital availability, and debt contracts- could explain the most significant negative abnormal returns among all events when the FASB initially moved toward accrual accounting for retiree benefits (event 1). This result implies that the magnitude of market reaction to events has something to do with a better inference in event study hypothesis testing.

5.5.3. Test results of small sample analysis

The magnitude of market reaction for the sample in the Barron's is somewhat similar to that of the provider sample in the previous sections. The explanatory variables have also

relatively the same moments as those of all provider group. The correlations among variables through all events are not different from those in the original sample except the following correlations. First, the pairwise correlation between EXPMV and INDUS becomes more significant (around +0.4) in events 4, 7, and 8. Second, the pairwise correlation between EXPMV and DERATIO is relatively high (around +0.5) only in event 1 and 2. Third, all events have negative correlation between EXPMV and FCFMV, even if most of them are not statistically significant. Finally, the correlation between CARs and EXPMV is stable in all events but event 1, where some extreme observations derives positive correlation between CAR2 and EXPMV.

Because this small sample from Barron's contains estimated income effect (i.e., net earnings change), the correlation between CARs especially from last two events and the income effect is also investigated. While the abnormal returns around event 7 show insignificant correlation, CARs from event 8 show relatively significant correlation around -0.15.

The results of regression analysis, replicated with this small sample, show consistent results compared with the original sample but less significant F-value and R-square. When the regression model is replicated with the estimated income effect as a new explanatory variable replacing EXPMV, the significance level for the coefficient is rather reduced, suggesting that the analyst's data from Barron's explain the abnormal returns poorly. Also, the significance of the regression model is much

reduced not only due to the poorer explanatory power of the new variable, estimated income effect, but for the smaller sample size, i.e., smaller number of degree of freedom.

Chapter 6. The Association between Lobbying Position and Market Reaction

6.1. Wealth transfer hypothesis

The economic theory of agency analyzes the conflict of interests that can arise when principals delegate resource allocation decision to agents. Previous financial economics literature explores alternative incentive arrangements such as voluntary contracts for controlling conflict of interests, i.e., to minimize agency costs. Within the business firm, the principal-agent relationship exists among stockholders, bondholders, management, and labor. Jensen and Meckling (1976) suggest that, given increasing agency costs with higher proportions of equity on the one hand and higher proportions of debt on the other, there is an optimum combination of outside debt and equity that minimizes agency costs. Titman (1981) suggests that agency costs are important for contracts between the firm and its employees or its customers.

If the new accounting requirement leads to changes in a firm's capital structure and future cash flow, it causes a wealth transfer among principal and agents, which will change agency costs. With a new accounting standard for retiree benefits, there is a wealth transfer from resource owners to laborers,[47] because the unfunded liability for retiree benefits results in more accrued debt, and prefunding is considered to reduce the

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[47] Here, I assume that top managers, who determine lobbying positions, are not beneficiaries for wealth transfer like laborers or employees.

liability in the future. Because there is always competition among financial resources, prefunding may cause management to pass up future investment opportunities, resulting in reduced firm value. If the changes in debt value are not considered, total wealth transfer from resource owners to laborers can be surrogated by changes in market returns for the events.

Thus, the following hypothesis can be developed:

Firms with higher wealth transfers associated with the new accounting rule for retiree benefits are more likely to lobby against the ED because higher wealth transfer means a more reduction in total firm value. In other words, the market reaction before the lobbying decision and standard enactment, i.e., cumulative abnormal return for event periods in this study, can predict how a company responds to the FASB.

6.2. Test methodology

Three different tests are done; first, Pearson moment correlation and nonparametric Spearman rank correlation are investigated between a firm's response index and cumulative abnormal returns for the events with significant market reaction.[48] Second, the lobbying model in chapter 4 is tested again by including the cumulative abnormal returns for the two recent events as an additional independent variable to see whether the model's prediction power is improved or not.

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[48] See footnote 43 and pp. 75-76 for the measurement of cumulative abnormal returns.

Finally, the cumulative abnormal returns in the significant events are compared between two different groups- provider with lobbying and provider without lobbying to see if there is any difference in market reaction which might motivate firms to participate in lobbying. Sample firms for the first two tests are same as those in chapter 4. The third test uses the providing firms in chapter 5 as a total sample, and classifies firms into provider with lobbying and provider without lobbying, depending on whether they lobbied or not. The variables and other methodologies are same as in previous chapters.

6.3. Empirical results

6.3.1. Correlation results

None of significant events shows significant correlation between the lobbyist's response index and the market reaction, indicating that the firms' lobbying positions are not affected by the previous market reaction to the events related to retiree benefits. However, the correlation becomes significant with correct predicted sign when the last two events are observed. In general, the wealth hypothesis, in its alternative form, is not accepted.

6.3.2. Regression analysis

Tables 7 and 9 presents the results of lobbying model with CARs or SCARs (i.e., market reaction) as an additional independent variable using OLS regression analysis and logit analysis, respectively. In table 7, the coefficient has the predicted sign, but none of them is statistically significant to

explain response index in model II, III, V, VI, VIII, and IX. This variable has also insignificant prediction power in table 9. These test results is consistent with the correlation analysis in that the wealth transfer hypothesis, in its alternative form, is not accepted.

6.3.3. Comparison of abnormal returns

None of significant events shows significant difference in cumulative abnormal returns between providers with lobbying and providers without lobbying, suggesting that the previous market reaction is not one of motivation for the lobbying participation. However, when the most two recent events are considered, the lobbying group tend to have more negative returns than the non-lobbying group, even though the difference is not significant.

In conclusion, it is believed that the market reaction around the events is rarely associated with a firm's lobbying position, and that the reaction can predict neither a firm's lobbying position nor its lobbying participation.

Chapter 7. Conclusion and Future Research

Recently, the nonpension component of the employees' postretirement benefits has attracted considerable public attention because the expected mandatory accounting change to accrual basis will significantly change the financial statements of employers providing such benefits. In fact, about 95% of the companies providing postretirement healthcare benefits currently expense the cost as they pay the premiums or claim costs. That is, they use the pay-as-you-go method of accounting. Now, at a time when an overwhelming majority of large employers are providing these benefits after retirement, a combination of several environmental factors - rapid increases in healthcare costs, an increasing early retirement, and expanding life expectancy, may cause the new accounting rule to have a greater impact than any other accounting rules which have been issued so far.

This study investigates both management lobbying behavior for a proposed accounting standard and market reaction to the proposed accounting change before its promulgation and attempts to find the motivation of companies' lobbying behavior and to explain the reasons for the market reaction based on contracting theory and other hypotheses developed. Employer reactions such as lobbying can be viewed as evidence of their concern about future cash flow effects - direct or indirect - resulting from their promise to provide postretirement benefits other than pensions. Empirical tests reveal that the lobbying firms'

position is likely to be related with current cash expense, management stock ownerships, and industry characteristics. Also, firms with the benefit plans experienced significantly negative abnormal returns for most events leading to an accounting change while firms without the plans did not. However, few hypotheses could explain the market reaction on a consistent basis except the future income effect.

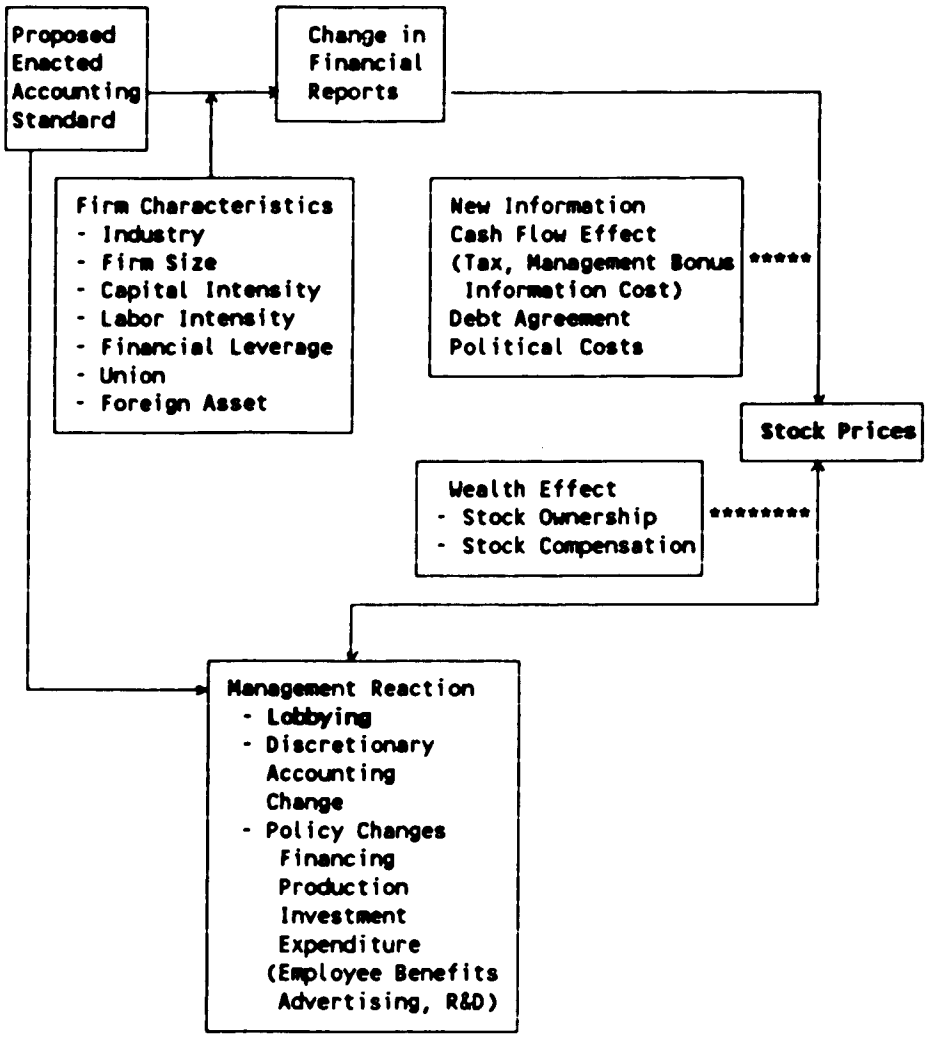
Also, the association between the previous market reaction and the lobbying behavior is tested to see whether the wealth transfer through the important events can explain firms' lobbying decision. It is found that the market reaction is rarely associated with a firm's lobbying decision.

Future research in the area of nonpension retiree benefits looks very fruitful. Once employers have recognized the true nature of their retiree benefits liabilities pursuant to the FASB's new accounting rule, there may be growing interest in determining how to fund in a trust to meet these obligations. Thus, it is possible to extend this study by assessing the effects of using alternative funding methods. This will be accelerated if tax laws are changed to allow deductions for the fund used for nonpension retiree benefits.

Also, this study examines only the equity stock market in investigating the impact of accounting regulation. Accounting regulators are concerned with the welfare of a broad spectrum of individuals, of which stockholders are only a subset. If accounting policy changes the wealth of stockholders and the

level of financial liability, there may be wealth transfers between the subsets of individuals, such as bondholders and employees. Thus, it is important to determine whether the accounting policy for retiree benefits has an impact on the bond market and bankruptcy prediction; i.e., the impact of any newly recognized APBO on bond ratings and analysts' bankruptcy prediction.

Figure 1. Stock Price Movement and Management Reaction for Mandatory Accounting Change



[Source: Revised from Kelly(1983).]

Appendix A. The Minutes of the FASB's Board Meetings on OPEB*

No.	Date	Topic
1.	November 29, 1989	Discussion of OPEB Gameplan and recognition of the OPEB obligation
2.	December 13, 1989	Discussion of measurement issues
3.	February 14, 1990	Discussion of measurement issues - selecting discount rate
4.	April 4, 1990	Discussion of measurement issues - projection, attribution method and period
5.	April 11, 1990	Discussion of recognition issues - minimum liability

*OPEB : Other post-employment benefits

MEMORANDUM

Financial Accounting Standards Board

TO Board Members

FROM OPEB Team (Scott, Metzger)

SUBJECT Minutes of the November 29, 1989 Board Meeting - Revised

DATE December 1, 1989

cc: T. Lucas, J.T. Ball, D. Mosso, J. Cassel, J. Adams, K. Petrone, W. Upton, J. Vernuccio (2), R. Van Riper, D. Harrington, J. Etes, J. Gabriele (5), P. Kolton, P. Simpson, Daily Carbons

Topic: Discussion of OPEB Gameplan and recognition of the OPEB obligation

Basis for Discussion: November 21, 1989 Board Memorandum

Length of Discussion: Starting Time: 9:30 a.m. Concluding Time: 9:55 a.m.

Attendance:

Board members present:	Messrs. Beresford, Brown, Lauver, Leisenring, Northrop, Sampson, and Swieringa
Board members absent:	None
Staff in charge of topic:	D. Scott
Other staff at Board table:	T. Lucas, J. Cassel, J. Adams, K. Petrone, R. Metzger
Outside participants:	None

Matters Discussed, Decisions Reached, and Follow-up Action:

The Board discussed whether the cost of and obligation for postretirement benefits should be recognized over employee service periods. The Board tentatively concluded that accrual accounting is appropriate for postretirement benefits other than pensions, reaffirming the view expressed in the Exposure Draft. The Board and staff also discussed the staff's plan for addressing the issues regarding employers' accounting for postretirement benefits other than pensions.

General Announcements:

None

Summary for ACTION ALERT:

The Board discussed whether the cost of and obligation for postretirement benefits should be recognized over employee service periods. The Board tentatively concluded that accrual accounting is appropriate for postretirement benefits other than pensions, reaffirming the view expressed in the Exposure Draft. The Board and staff also discussed the staff's plan for addressing the issues regarding employers' accounting for postretirement benefits other than pensions.

MEMORANDUM

Financial Accounting Standards Board

TO Board Members

FROM OPER Team (Scott, Metzger)

SUBJECT Minutes of December 13, 1989 Board Meeting

DATE December 14, 1989

cc: T. Lucas, J.T. Ball, D. Mosso, J. Cassel, J. Adams, W. Upton, K. Petrone, J. Vermuccio (2), R. Van Riper, D. Harrington, J. Etes, J. Gabriele (5), P. Kolton, P. Simpson, Daily Carbons

Topic: Discussion of Measurement Issues

Basis for Discussion: December 7, 1989 Board Memorandum

Length of Discussion: Starting Time: 9:30 a.m. Concluding Time: 11:05 a.m.

Attendance:

Board members present:	Messrs. Beresford, Brown, Lauver, Leisenring, Northrop, Sampson, and Swieringa
Board members absent:	None
Staff in charge of topic:	D. Scott
Other staff at Board table:	T. Lucas, D. Mosso, J. Cassel, J. Adams, K. Petrone, R. Metzger
Outside participants:	None

Matters Discussed, Decisions Reached, and Follow-up Action:

The Board discussed the assumptions and data needed to measure the cost and obligation for postretirement benefits other than pensions. The Board reached the following tentative conclusions:

- The objective of developing per capita claims cost information should be to obtain representative information on gross eligible charges. General guidance on the development of that data should be developed by the staff for the Board's consideration, including the use of historical information "rolled forward" to the measurement date to reflect plan changes. The Board directed the staff to meet with actuaries and insurance experts in developing the guidance.

- An unprojected measurement approach is not a representationally faithful or reliable portrayal of the postretirement benefit promise. Consequently, the Board directed the staff to consider alternatives for projecting expected gross eligible charges, including consideration of the extent to which costs of administering the plan (internal and external) should be considered in measuring the expected cost of providing the benefits.

- Each assumption should reflect the best estimate solely with respect to that individual assumption (an "explicit" approach). In determining the explicit assumptions to be made, the Board directed the staff to develop for the Board's consideration guidance that would define circumstances in which an employer should anticipate future plan changes in the measurement process. The Board also directed the staff to develop an explicit assumption for participation rates (if the plan is contributory), for those cases in which the rate of participation could significantly affect measurement of the obligation and cost.

- Only current plan participants should be considered in measuring the postretirement benefit obligation and cost (a "closed group" approach).

- Consideration of a transitional measurement approach should not be pursued at this time but could be considered in the future.

- The existing guidance on assumed reimbursements from Medicare and others, salary progression, and probability is adequate. A discount rate should be assumed; alternatives to the proposed determination of the assumed discount rate will be addressed at the January 24, 1990 Board meeting.

General Announcements:

None

Summary for ACTION ALERT:

The Board reconfirmed an explicit, closed group approach to measurement of the postretirement benefit obligation and cost. The Board also requested that the staff further pursue whether there should be an explicit assumption anticipating certain future plan amendments. The Board tentatively concluded that an unprojected measurement approach should not be prescribed; the staff was directed to consider alternatives for projecting expected future plan costs (gross eligible charges).

MEMORANDUM

Financial Accounting Standards Board

TO Board Members

FROM OPEB Team (Scott, Metzger)

SUBJECT Minutes of the February 14, 1990 Board Meeting

DATE February 14, 1990

cc: T. Lucas, J.T. Ball, D. Mosso, J. Cassel, J. Adams, K. Petrone, W. Upton, J. Vernuccio (2), R. Van Riper, D. Harrington, J. Etes, J. Gabriele (5), P. Kolton, P. Simpson, Daily Carbons

Topic: Discussion of OPEB Measurement Issues

Basis for Discussion: February 9, 1990 Board Memorandum
February 13, 1990 Board Memorandum

Length of Discussion: Starting Time: 9:30 a.m. Concluding Time: 12:45 p.m.

Attendance:

Board members present:	Messrs. Beresford, Brown, Lauver, Leisenring, Northrop, Sampson, and Swieringa
Board members absent:	None
Staff in charge of topic:	D. Scott
Other staff at Board table:	T. Lucas, D. Mosso, J. Cassel, W. Upton, J. Adams, K. Petrone
Outside participants:	None

Matters Discussed, Decisions Reached, and Follow-up Action:

The Board and staff discussed the rate at which postretirement benefit obligations should be discounted. The Board tentatively concluded that the present value of the postretirement benefit obligation should be measured based on current rates of return on high-quality fixed-income investments currently available and expected to be available during the period until the benefits are expected to be paid. The Board noted that the objective of the discounting process and the meaning of "expected to be available" should be clarified in the final document.

In addition, the Board continued its consideration of the conditions an employer must meet in order to anticipate future plan amendments for measurement purposes. No decisions were reached. The Board will continue its consideration of this issue at the February 28, 1990 Board meeting.

General Announcements:

None

Summary for ACTION ALERT:

Same as Matters Discussed . . .

MEMORANDUM

Financial Accounting Standards Board

TO Board Members

FROM OPEB Team (Scott, Metzger)

SUBJECT Minutes of the April 4, 1990 Board Meeting

DATE April 5, 1990

cc: T. Lucas, J.T. Ball, D. Mosso, J. Cassel, J. Adams, K. Petrone, W. Upton, J. Vernuccio (2), R. Van Riper, D. Harrington, J. Etes, J. Gabriele (5), P. Kolton, P. Simpson, Daily Carbons

Topic: Employers' Accounting for Postretirement Benefits Other Than Pensions

Basis for Discussion: March 28, 1990 Board Memorandum
March 29, 1990 Board Memorandum

Length of Discussion: Starting Time: 9:30 a.m. Concluding Time: 11:00 a.m.

Attendance:

Board members present:	Messrs. Beresford, Brown, Lauver, Leisenring, Northrop, Sampson, and Swieringa
Board members absent:	None
Staff in charge of topic:	D. Scott
Other staff at Board table:	T. Lucas, D. Mosso, J. Cassel, J. Adams, K. Petrone, R. Metzger
Outside participants:	None

Matters Discussed, Decisions Reached, and Follow-up Action:

The Board continued its consideration of measurement issues, focusing on alternatives for projecting future health care costs and on defining the plan that is the basis for the accounting and whether or not certain changes to that plan should be anticipated. The Board tentatively concluded that an employer's expected postretirement benefit obligation and cost should be measured by projecting future costs based on an employer's best estimate of its health care cost trend rate, reaffirming the view expressed in the Exposure Draft.

The Board also tentatively concluded that the substantive plan should be the basis for the accounting. An employer's pattern of increasing or reducing

participants' contributions required under the plan, or increasing or reducing certain other employer and retiree cost-sharing provisions of the plan, may establish certain provisions of the substantive plan. That pattern should be assumed to continue in the future unless the employer has evidence of its ability and intent to change that pattern and has communicated that intent to plan participants. In situations not involving a pattern of change in a specific cost-sharing provision, but where an employer intends to modify that provision of the plan, the intended modification should be considered a provision of the substantive plan if the employer has evidence supporting its ability and intent to modify that provision and has communicated that intent and the timing of the modification to plan participants.

Board members unanimously accepted projecting postretirement health care benefit costs based on an employer's best estimate of its health care cost trend rate. Messrs. Brown, Swieringa, Leisenring, Northrop, Sampson, and Beresford agreed with the staff's proposal for anticipating certain changes in cost-sharing provisions of the plan for measurement purposes. Mr. Lauver was not satisfied that the proposal is operational. (Mr. Leisenring shared that concern but stated he was "not mutinous, but sullen.")

The Board also considered how postretirement benefits should be assigned to periods of employee service. The Board tentatively concluded that a single attribution method, a benefit/years-of-service approach, should be prescribed. In considering the period over which benefits should be attributed, the Board considered whether postretirement benefits should be attributed beyond an employee's full eligibility date in all, some, or no cases. The Board believes that (1) the exchange transaction between an employer and its employees clearly defines the service to be rendered in exchange for the benefit, (2) a conditional approach that would attribute benefits to the full eligibility date in some, but not all, cases is not operable, and (3) attribution to the full eligibility date is consistent with the accounting for other forms of deferred compensation. Consequently, the Board tentatively concluded that, in the absence of a benefit formula that defines the specific years of service to be rendered in exchange for the benefits, postretirement benefits should be attributed to employee service to the date an employee attains eligibility for the full amount of benefits that employee is expected to earn under the plan (the full eligibility date). The Board's tentative decision reaffirms the view expressed in the Exposure Draft.

Board members unanimously agreed that a single attribution method should be prescribed and that method should be the benefit/years-of-service approach. Messrs. Swieringa, Lauver, Leisenring, and Sampson agreed with retaining the attribution period proposed in the Exposure Draft. Mr. Beresford expressed uncertainty, noting that his leaning is towards retaining that provision but his preference is to reconsider a conditional approach. Messrs. Brown and Northrop disagreed with the staff recommendation and expressed support for a conditional approach.

General Announcements:

None

Summary for ACTION ALERT:

The Board continued its consideration of measurement issues, focusing on alternatives for projecting future health care costs and on defining the plan that is the basis for the accounting and whether or not certain changes to that plan should be anticipated. The Board tentatively concluded that an employer's expected postretirement benefit obligation and cost should be measured by projecting future costs based on an employer's best estimate of its health care cost trend rate, reaffirming the view expressed in the Exposure Draft.

The Board also tentatively concluded that the substantive plan should be the basis for the accounting. An employer's pattern of increasing or reducing participants' contributions required under the plan, or increasing or reducing certain other employer and retiree cost-sharing provisions of the plan, may establish certain provisions of the substantive plan. That pattern should be assumed to continue in the future unless the employer has evidence of its ability and intent to change that pattern and has communicated that intent to plan participants. In situations not involving a pattern of change in a specific cost-sharing provision, but where an employer intends to modify that provision of the plan, the intended modification should be considered a provision of the substantive plan if the employer has evidence supporting its ability and intent to modify that provision and has communicated that intent and the timing of the modification to plan participants.

The Board also considered how postretirement benefits should be assigned to periods of employee service. The Board tentatively concluded that a single attribution method, a benefit/years-of-service approach, should be prescribed. In considering the period over which benefits should be attributed, the Board considered whether postretirement benefits should be attributed beyond an employee's full eligibility date in all, some, or no cases. The Board believes that (1) the exchange transaction between an employer and its employees clearly defines the service to be rendered in exchange for the benefit, (2) a conditional approach that would attribute benefits to the full eligibility date in some, but not all, cases is not operable, and (3) attribution to the full eligibility date is consistent with the accounting for other forms of deferred compensation. Consequently, the Board tentatively concluded that, in the absence of a benefit formula that defines the specific years of service to be rendered in exchange for the benefits, postretirement benefits should be attributed to employee service to the date an employee attains eligibility for the full amount of benefits that employee is expected to earn under the plan (the full eligibility date). The Board's tentative decision reaffirms the view expressed in the Exposure Draft.

MEMORANDUM

Financial Accounting Standards Board

TO Board Members

FROM OPEB Team (Scott, Metzger)

SUBJECT Minutes of the April 11, 1990 Board Meeting

DATE April 13, 1990

cc: T. Lucas, J.T. Ball, D. Mosso, J. Cassel, J. Adams, K. Petrone, W. Upton, J. Vernuccio (2), R. Van Riper, D. Harrington, J. Etes, J. Gabriele (5), P. Kolton, P. Simpson, Daily Carbons

Topic: Employers' Accounting for Postretirement Benefits Other Than Pensions

Basis for Discussion: April 4, 1990 Board Memorandum

Length of Discussion: Starting Time: 9:30 a.m. Concluding Time: 10:20 a.m.

Attendance:

Board members present:	Messrs. Beresford, Brown, Lauver, Leisenring, Northrop, Sampson, and Swieringa
Board members absent:	None
Staff in charge of topic:	D. Scott
Other staff at Board table:	T. Lucas, D. Mosso, J. Cassel, J. Adams, K. Petrone, R. Metzger
Outside participants:	None

Matters Discussed, Decisions Reached, and Follow-up Action:

The Board considered whether recognition of a "minimum liability" for postretirement benefits should be required. The Board tentatively concluded not to require recognition of a minimum liability for postretirement benefits; the unfunded accumulated benefit obligation for retirees and other fully eligible plan participants will be discernible from the funded status disclosure in the notes to the financial statements. The Board's tentative decision represents a change from the view expressed in the Exposure Draft. The Board rejected a proposal to amend Statement 87, Employers' Accounting for Pensions, to eliminate its minimum liability provision.

Messrs. Brown, Swieringa, Northrop, Sampson, and Beresford supported eliminating the minimum liability requirement; Mr. Swieringa noted the issue should be reconsidered in connection with the Board's consideration of transition issues. Messrs. Lauver and Leisenring supported retaining the minimum liablity provisions proposed in the Exposure Draft.

General Announcements:

None

Summary for ACTION ALERT:

Same as first paragraph of Matters Discussed . . .

Appendix B. The actuarial estimate for retiree healthcare benefits

SUBJECT: Retiree Medical Expense

This memo summarizes the financial results of 76 TPF&C valuations of retiree medical plans.

Following is a summary of selected results of 76 valuations of post-retirement medical plans conducted by TPF&C. The data was collected from the actuary as part of the development of the TPF&C Medical Expense Data Base (MEDBase). MEDBase will be released shortly as a Symphony spreadsheet so that consultants can analyze the assumptions and results of TPF&C valuations and show clients how their results compare with those of other employers. Because of variations in assumptions and methods, the results are not all on the same basis. Comparisons will, however, be of great interest.

Following is a summary of key results:

		Percentiles			
	Mean	25th	50th	75th	90th
Normal Cost per Employee (annual)	$ 796	$ 352	$ 575	$ 951	$ 1,619
Present Value of Benefits					
- Per Active Employee	18,862	8,592	15,265	21,813	39,629
- Per Retiree	25,625	14,976	22,783	32,767	41,967
Expense (annual)					
- Per Employee	3,167	1,510	2,609	4,487	6,264
- % of Pay	12.4%	5.5%	10.3%	15.9%	27.1%

Source: TPF&C's internal memorandum

Appendix C. Tice's estimate of financial impact for accounting change in retiree benefits

* Source: Barron's (pp. 28-29, April 17, 1989)

	Potential Economic Liab.				Net Changes		Price		Price	Current Expense
	1984 Book Value ($)/Share	Book Value (%)/Share	%Change w/in Pensions	Earnings 1984	1		/Book Bef.	Aft.	/Earnings Bef.	Aft.	as of '87(1984)
General Signal	−185	−5.56	−23	−1	−22	−130	2.0	2.0	34.1	N.M.	4
Polaroid	−78	−1.89	−6	9	−16	−72	2.3	2.1	N.M.	N.M.	3
Combustion Eng.	−208	−5.47	−24	−21	−49	−68	1.2	1.5	−17.1	N.M.	15
Northrop	−289	−6.37	−32	22	−61	−59	1.3	1.1	12.2	20.4	19
Baker Hughes	−127	−1.87	−15	−16	−26	−50	2.3	2.7	37.5	73.7	6
McDon. Doug.	−892	−23.35	−31	9	−168	−48	1.2	1.1	10.0	19.3	68
Cincinnati Milac	−47	−1.93	−22	−7	−9	−37	2.6	2.8	21.8	34.4	5
Data General	−73	−2.60	−12	−12	−17	−34	0.7	0.8	−9.0	−13.7	1
Pennzoil	−44	−1.21	−2	−3	−9	−34	1.5	1.6	120.3	182.8	3
Goodyear Tire	−887	−11.59	−37	−20	−118	−34	1.4	1.8	7.4	11.2	73
Dresser Ind.	−227	−3.37	−15	−16	−44	−33	1.6	1.9	17.9	26.5	16
No. Telecom	−245	−1.83	−10	−15	−54	−32	1.5	1.8	21.3	31.4	5
Gen'l Dynamics	−360	−13.43	−35	−12	−121	−32	1.4	1.6	5.9	8.7	17
Boeing	−976	−6.37	−19	−12	−193	−31	2.0	2.3	16.2	23.6	59
Allied-Signal	−769	−5.20	−24	−18	−140	−31	1.5	1.8	10.4	15.0	68
FMC	−174	−5.12	0	0	−34	−28	N.M.	N.M.	9.4	13.1	11
UAL	−368	−17.10	−33	−38	−75	−28	2.2	3.6	9.1	12.6	19
Dana	−244	−6.8	−28	−45	−45	−28	1.7	3.2	9.4	13.0	21
ConAgra	−197	−2.53	−24	−24	−45	−27	3.0	3.9	14.5	19.8	2
Hercules	−139	−3.47	−8	9	−31	−27	1.0	1.0	18.1	24.7	10
Navistar Int'l	−431	−1.71	−114	−155	−63	−27	3.9	−7.1	6.3	8.5	108
Texas Instr.	−393	−4.89	−18	2	−67	−27	1.4	1.3	9.3	12.6	8
Martin Marietta	−392	−7.38	−33	7	−83	−26	2.0	1.9	7.5	10.1	14
Rockwell Int'l	−1,035	−3.93	−28	28	−189	−24	1.5	1.2	7.2	9.5	90
Motorola	−473	−3.65	−14	−10	−108	−24	1.5	1.7	11.6	15.4	4
E-Systems	−84	−2.72	−19	16	−18	−24	2.0	1.7	11.5	15.2	3
Colgate-Palm.	−222	−3.25	−20	−11	−46	−24	2.8	3.1	16.5	21.7	10
Ingersoll Rand	−178	−3.44	−16	−18	−37	−24	1.7	2.1	12.3	16.2	8
USX	−972	−3.71	−21	−9	−153	−22	1.7	1.9	11.6	15.0	127
General Motors	−5,330	−17.42	−16	9	−968	−22	0.8	0.7	5.8	7.4	820
Gerber Prod.	−77	−3.90	−24	−9	−17	−22	4.0	4.4	17.1	21.8	2
Chrysler	−1,296	−5.76	−19	−61	−227	−22	0.8	2.2	5.3	6.7	203
Black & Decker	−100	−1.71	−14	−14	−22	−21	1.6	1.9	11.2	14.2	2
Deere	−354	−4.76	−14	−15	−64	−21	1.5	1.8	12.3	15.5	32
Schlumberger	−447	−1.88	−13	−12	−82	−20	2.6	3.0	21.5	26.9	39
Lockheed	−589	−9.93	−30	37	−122	−20	1.3	1.0	4.3	5.4	26
Unisys	−513	−3.23	−15	−17	−109	−19	1.2	1.4	7.0	8.7	18
Amer. T&T	−2,177	−2.03	−15	47	−424	−19	2.3	1.6	15.0	18.5	234
Delta Airlines	−304	−6.18	−14	−13	−65	−19	1.3	1.5	8.1	10.0	11
Eaton	−197	−5.28	−19	−21	−42	−18	2.0	2.5	9.1	11.2	7

	Potential Economic Liab.				Net Changes		Price		Price	Current Expense
	1991 Book Value ($)/Share	Book Value (%)/Share	%Change w/in Pensions		1991 Earnings	%	/Book Bef. Aft.		/Earnings Bef. Aft.	as of '87(1991)
SmithKline Beck.	-190	-1.53	-12	-12	-41	-18	4.3	4.7	28.9	35.3	5
AMR	-408	-6.92	-15	-20	-83	-18	1.2	1.5	7.1	8.6	21
Westinghouse	-702	-4.89	-20	-49	-138	-17	2.1	4.1	9.6	11.6	45
Ralston Purina	-295	-4.32	-27	-4	-65	-17	5.0	5.2	14.5	17.6	7
NCR	-328	-4.08	-16	-4	-71	-17	2.0	2.1	10.1	12.1	9
ITT	-576	-4.28	-7	-7	-130	-16	0.9	0.9	8.7	10.4	8
Perkin-Elmer	-55	-1.24	-8	-8	-12	-16	1.3	1.4	12.9	15.4	1
Raytheon	-363	-5.48	-20	-12	-79	-16	2.4	2.8	9.0	10.7	9
Morton Thiokol	-126	-2.66	-12	1	-26	-16	1.9	1.9	13.0	15.6	6
Amer. Cyanamid	-252	-2.81	-13	-18	-49	-16	2.4	3.0	14.8	17.7	17
Caterpillar	-553	-5.45	-15	-2	-98	-16	1.6	1.7	9.4	11.1	54
Borden	-219	-2.96	-13	-13	-47	-15	2.5	2.9	13.5	15.9	8
Gillette	-163	-1.89	-32	-30	-35	-15	6.7	9.5	14.1	16.6	5
Teledyne	-271	-23.79	-12	18	-56	-14	1.8	1.5	10.2	11.9	13
Monsanto	-434	-6.22	-12	2	-80	-14	1.8	1.7	11.3	13.1	37
Quaker Oats	-164	-2.87	-13	-13	-36	-14	3.3	3.7	15.3	17.8	5
Goodrich (B.F.)	-147	-5.82	-17	-21	-25	-13	1.5	1.9	7.1	8.3	16
Gen'l Electric	-2,417	-2.68	-15	13	-455	-13	2.4	2.1	11.7	13.6	270
Ford Motor	-4,223	-8.54	-23	-16	-718	-13	1.3	1.6	4.4	5.1	462
Warner-Lambert	-206	-3.83	-24	-20	-42	-12	6.3	7.9	16.0	18.3	10
CSX	-318	-2.04	-6	-5	-65	-12	1.0	1.0	9.3	10.6	16
Unocal	-144	-1.23	-8	4	-27	-12	2.7	2.6	21.4	24.4	11
NYNEX	-862	-4.36	-10	10	-157	-12	1.5	1.4	10.5	12.0	NS
Corning Glass	-182	-2.80	-12	-11	-36	-12	2.0	2.2	10.4	11.8	12
Gannett	-186	-1.16	-12	-2	-41	-11	3.7	3.8	14.2	18.2	5
ENRON	-56	-1.18	-6	5	-11	-11	1.9	1.8	18.8	21.3	4
Eastman Kodak	-863	-2.66	-14	7	-154	-11	2.4	2.2	10.4	11.7	82
RJR Nabisco	-693	-3.08	-13	-16	-145	-11	3.6	4.3	14.6	16.4	28
McGraw-Hill	-98	-2.80	-11	-1	-20	-11	3.5	3.6	17.5	19.6	5
Ameritech	-743	-2.73	-10	30	-134	-11	1.8	1.4	11.3	12.6	69
Merrill Lynch	-198	-2.80	-6	-3	-46	-11	0.8	0.9	6.3	7.1	1
Digital Equip.	-542	-4.28	-7	-3	-126	-11	1.6	1.7	10.4	11.7	1
Xerox	-301	-2.93	-6	-6	-64	-11	1.2	1.2	10.0	11.2	30
Hewlett-Packard	-379	-1.62	-8	-5	-87	-11	2.6	2.7	14.8	16.6	3
Heinz (H.J.)	-191	-1.48	-12	-9	-43	-10	3.9	4.3	15.0	16.7	3
Bell Atlantic	-734	-3.71	-8	-2	-134	-10	1.7	1.7	11.3	12.5	65
So'western Bell	-585	-1.95	-7	15	-108	-10	1.6	1.4	12.5	13.9	50
Union Carbide	-358	-2.64	-26	-30	-67	-10	3.3	4.5	6.1	6.8	20
Pacific Telesis	-625	-1.49	-8	11	-115	-10	1.8	1.7	12.2	13.6	70
ALCOA	-439	-4.85	-11	-13	-81	-9	1.3	1.5	5.9	6.5	32

	Potential Economic Liab. $Mil	Book Value ($)/Share	Book Value (%)/Share	%Change w/ Pensions	Net Changes in Earnings $Mil	Net Changes in Earnings %	Price /Book Bef.	Price /Book Aft.	Price /Earnings Bef.	Price /Earnings Aft.	Current Expense as of '87($Mil)
Boise Cascade	−130	−2.95	−9	−5	−27	−9	1.3	1.4	6.6	7.3	7
Du Pont	−1,157	−4.83	−8	19	−201	−9	1.7	1.4	11.0	12.1	161
US West	−500	−3.07	−8	−8	−108	−9	1.5	1.7	10.0	11.0	NB
Reynolds Metals	−239	−4.44	−14	−28	−44	−9	1.7	2.3	5.7	6.3	27
John & John	−391	−2.33	−12	−6	−87	−9	4.3	4.6	15.3	16.8	8
Champion Int'l	−204	−2.15	−7	−8	−41	−9	1.0	1.1	6.3	6.9	12
Avon Products	−180	−2.80	−27	−11	−30	−9	2.0	2.2	−3.0	−3.3	5
PPG Industries	−178	−1.62	−9	−7	−40	−9	2.3	2.5	10.1	11.1	3
Weyerhaeuser	−213	−1.05	−6	−9	−46	−8	1.4	1.5	9.6	10.5	6
Scott Paper	−156	−2.13	−10	−8	−32	−8	1.9	2.1	7.9	8.6	8
Procter & Gamb	−398	−2.35	−6	−6	−67	−8	2.4	2.6	13.8	14.9	30
Internat'l Paper	−259	−2.33	−6	8	−55	−7	1.2	1.2	6.9	7.4	10
IBM	−1,717	−2.90	−5	1	−401	−7	1.7	1.7	11.8	12.8	50
Snap-on Tools	−30	−0.93	−9	−5	−8	−7	3.3	3.5	13.2	14.2	1
Norfolk Southern	−215	−1.20	−5	−4	−45	−7	1.3	1.3	9.5	10.2	10
Mobil	−706	−1.71	−4	−3	−147	−7	1.2	1.2	9.6	10.4	30
Pfizer	−224	−1.35	−5	−1	−48	−6	2.1	2.2	11.9	12.7	8
Texaco	−407	−1.66	−4	−5	−76	−6	1.4	1.5	9.9	10.5	32
Amer. Home Pr.	−236	−1.61	−9	−10	−51	−5	4.9	5.4	13.3	14.1	7
Chevron	−535	−1.56	−3	1	−94	−5	1.1	1.1	10.0	10.6	53
Squibb	−98	−1.01	−7	−3	−21	−5	4.4	4.6	15.3	16.1	4
Bristol-Myers	−174	−0.60	−5	−3	−38	−5	4.1	4.3	16.1	16.9	4
Amoco	−404	−1.88	−4	−1	−85	−4	1.7	1.7	10.0	10.4	48
AMAX	−128	−1.57	−12	−9	−26	−4	1.7	1.9	2.8	2.9	7
Exxon	−906	−0.75	−3	1	−176	−3	1.8	1.8	11.3	11.7	94
Dow Chemical	−437	−2.33	−8	−7	−82	−3	2.9	3.2	7.0	7.2	35
Loews	−142	−1.87	−4	−7	−29	−3	2.0	2.2	7.4	7.6	6
Merck	−193	−0.49	−9	2	−39	−3	11.9	11.7	21.0	21.7	10
Seagram (Jos.)	−90	−0.92	−2	−2	−18	−3	1.4	1.5	10.9	11.3	5
Phelps Dodge	−55	−1.79	−5	−5	−11	−3	1.5	1.6	4.1	4.2	3
Atl. Richfield	−224	−1.27	−4	−4	−41	−3	2.7	2.8	10.2	10.4	19
CBS	−56	−2.37	−5	6	−11	−1	3.4	3.2	3.6	3.6	4

Appendix D. Questions for Lobbying Positions: Response Index

1. Should the accrual accounting be used for retiree benefits?

No (0) _____ Yes (5)

* If no, do not consider the following issues.

2. Which period should be used for attribution?

From date of hire

I----------I----------I----------I

(5) Eligibility

(3) Expected retirement

(1) Age 65

3. Which trend rate should be used to project future costs?

(0) No projection
(3) General inflation rate - consumer price index
(5) Explicit medical cost trend rate

4. For how many years should a transition obligation be amortized?

(0) No transition obligation recognized
(1) Over 35 years
(2) Between 25 and 35 years
(3) Between 15 and 25 years
(5) Maximum 15 years

5. When should a minimum liability be recognized?

(0) No minimum liability recognized
(1) Different definition of minimum liability
(3) Same definition but 11 years after
(4) Same definition but 6-10 years after
(5) Same definition and 5 years after

* Remarks: The number in the parentheses is a response index. The firms with higher index have more similar position to the FASB than the others with lower index.

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