

Research Reports

Recognition, Disclosure, or Delay: Timing the Adoption of *SFAS No. 106*

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1. Introduction

This study investigates the timing and method of adoption of *Statement of Financial Accounting Standards (SFAS) No. 106: Employers' Accounting for Post-Retirement Benefits Other Than Pensions* (FASB [1990]). Our study is motivated by the Financial Accounting Standard Board's (FASB) policy of extending the adoption period of new accounting standards beyond one fiscal year.¹ Specifically, during 1991 and 1992, firms could adopt *SFAS No. 106*, disclose the expected impact of adoption, or delay adoption/disclosure until fiscal 1993.

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¹ The FASB provided an extended adoption period "to give more time to employers and their advisors to assimilate the requirements and to obtain the information required" (FASB [1985, para. 259] and FASB [1990, para. 389]) and "because of concerns that some employers would have to arrange to renegotiate or to obtain waivers of provisions of some legal contracts" (FASB [1985, para. 260]).

Implementing a new accounting standard requires collecting and presenting new information, and may alter the measures of financial performance used in debt agreements and bonus calculations. While early adoption of a new accounting standard implies a need for a faster resolution of these considerations, it may also serve as a credible method of disclosing favorable private information. Disclosure of the standard's impact without formal adoption provides the firm with additional time to modify its contracts, but the disclosed information may be viewed as being less reliable than in the case of formal recognition. Adoption at the mandatory date with no previous disclosure provides the maximum available time for contract renegotiation and other adjustments.

In research on discretionary disclosure, Verrecchia [1983] shows that if disclosure is costly and traders have rational expectations, then partial disclosure constitutes an equilibrium. Dye [1985] analyzes reasons for management's failure to disclose private information. Dye [1986] adds the possibility of externalities between (nonproprietary) information disclosed and (proprietary) information not disclosed, such that investors are able to infer the undisclosed information from the disclosed information. Amir and Ziv [1997] consider the trade-offs between early and late reporting, and between early recognition and early disclosure of information to be released under new accounting standards. Generally, these models predict that discretionary revelation of private information constitutes good news.

In this study, we test several predictions, inspired by the above models, using firm's choices about the timing of adoption of *SFAS No. 106* and their choices between early recognition and early disclosure. Our tests assume that managers have private information about the standard's valuation effects and use the adoption timing and recognition/disclosure choices to convey this information to the market. We predict that firms with relatively favorable information are more likely to adopt *SFAS No. 106* and recognize the postretirement benefit liability before the mandatory adoption date; firms with "neutral" information are more likely to disclose the liability in the notes to the financial statements prior to the mandatory adoption date; and firms with relatively unfavorable information are more likely to wait until the mandatory adoption date. We also predict that early adopters are less involved in renegotiating their postretirement benefit plans than late adopters. Finally, we predict a positive market reaction around the adoption announcements of early adopters.

Consistent with prior studies, we find that early adopters experience, on average, more extreme earnings changes in the adoption year than late adopters. We also find that early adopters' average liability is smaller than that of early disclosing firms, which, in turn, is smaller than that of firms adopting at the mandatory adoption date. In addition, early adopters of *SFAS No. 106* are less involved in postretirement benefits renegotiations, and firms that renegotiate their contrasts have, on average, larger postretirement benefit liabilities. Finally, we find that early adoption announcements generate, on average, a positive market reaction and that

the market performance of early adopters during the five years ending December 1993 was significantly better than that of late adopters.

Several empirical studies have addressed the use of managerial motives for timing the adoption of new accounting standards, including the effects of new standards on debt covenants and on accounting-based compensation schemes.² We contribute to this literature in the following ways. First, we examine a broader set of alternatives; in addition to early versus late adoptions, we consider the choice between early recognition and disclosure. Second, we introduce another factor influencing adoption strategy—benefit plan amendments—and document its impact on the choice between recognition and disclosure. Finally, we document stock price behavior around the recognition/disclosure announcement.

In section 2 we develop our predictions; in section 3 we describe the sample, variables, and tests performed; section 4 reports the empirical evidence, and in section 5 we provide a summary and conclusions.

2. *Background and Development of Predictions*

2.1 BACKGROUND

In December 1990, the *FASB* issued *SFAS No. 106*, which requires firms to recognize postretirement benefits other than pensions (*PRB*) expected to be paid to active and retired employees. The standard was effective for fiscal years starting after December 15, 1992.

Firms were permitted to adopt *SFAS No. 106* by either the immediate recognition (catch-up) method or the prospective recognition method. Under the former, the after-tax transition obligation (the Accumulated Benefit Obligation less any accrued liabilities and plan assets) as of the beginning of the adoption year was charged to net income. Under the latter method, the before-tax transition obligation was deferred and amortized. While all firms had to recognize the liability no later than fiscal 1993, three alternatives were available during the extended adoption period (fiscal 1991–92): (1) recognize the liability (i.e., present the obligation on the balance sheet and calculate expenses based on the accrual method); (2) disclose the liability in the notes to the financial statements or in a press release; (3) delay all reporting of the liability until fiscal 1993.

2.2 EXISTING EXPLANATIONS

Some previous researchers have argued that firms closer to violating their accounting-based debt covenants are more likely to delay the adoption of an income-decreasing standard, perhaps to gain time for renegotiation.³ This argument is reflected in Prediction 1.

PREDICTION 1—LEVERAGE. Late adopters are expected to be, on average, more highly leveraged than early adopters.

² See Daley and Vigeland [1983], Ayres [1986], Imhoff and Thomas [1988], Langer and Lev [1993], Ali and Kumar [1994], and Amir and Livnat [1996].

³ Langer and Lev [1993] and Ali and Kumar [1994] provide evidence consistent with this argument in the context of *SFAS No. 87 (Employers' Accounting for Pensions)*.

Some previous compensation research implies that if a new accounting standard decreases management compensation by reducing reported earnings, managers will delay its adoption, subject to the effects of an upper or lower bound on compensation (Healy [1985]). As a result, firms with unusually high or low earnings are more likely to adopt an income-decreasing standard early. Assuming the previous year's earnings measure usual earnings, we predict that firms with larger (absolute value of) earnings changes are more likely to adopt the standard early than firms with smaller earnings changes.

PREDICTION 2—EARNINGS CHANGES. Early adopters are more likely than late adopters to experience larger earnings changes in the year of adoption.

2.3 ADOPTION TIMING AND RENEGOTIATION OF POSTRETIREMENT BENEFIT PLANS

During the extended adoption period a firm may attempt to renegotiate its *PRB*. Such renegotiations involve direct costs as well as concessions made in return for agreements to decrease such benefits (and hence the liability). Managers with favorable private information about the *PRB* liability are less likely to enter renegotiations because the benefits, as measured by *PRB* liability, are low. In contrast, managers with unfavorable private information are more likely to enter renegotiations and incur the renegotiation costs.

Delaying adoption while renegotiating the *PRB* plan may benefit the firm in the following way. If renegotiations are completed prior to the adoption year, the reported obligation is reduced by the full amount of the present value of the plan amendment. Otherwise, the present value of the plan amendment gain is amortized over the average remaining service life of employees. We therefore predict that firms that renegotiate their *PRB* contracts delay adoption.

Alternatives to delaying adoption are early recognition and early disclosure. Early recognition subjects the firm's accrual to a full audit in the adoption year. Only managers expecting their *PRB* liability to be relatively low are likely to pass such an audit and recognize a low *PRB* liability. Other managers, with anticipated high *PRB* liabilities, will not attempt early recognition. Consequently, we predict that managers of firms with favorable private information elect early adoption and that the market reaction to an early recognition (controlling for the reported *PRB* liability) is positive. In addition, firms cannot delay reporting after the completion of an audit which includes an investigation of the *PRB* liability.⁴ Hence, early recognition reduces the benefits from renegotiation.⁵

⁴ SEC Staff Accounting Bulletin No. 74 [1987] requires the disclosure of information regarding accounting standards not yet adopted and for which information is available.

⁵ See Verrecchia [1983, pp. 181–82] for a discussion of the effects of releasing accounting information on labor negotiations.

The third alternative is early disclosure without formal adoption. Disclosing a relatively low *PRB* liability may reduce the ability to receive concessions from beneficiaries but may provide a signal to the market about the *PRB* liability.⁶ On the other hand, disclosing a relatively high liability may imply a stronger bargaining position. However, if renegotiation fails, the firm will be forced to recognize a relatively high obligation, which may have an unfavorable effect on its share value.

Given the characteristics of the different adoption strategies, we formalize three predictions. First, we predict the relation between the firm's *PRB* liability and its adoption strategy.

PREDICTION 3—LIABILITY ORDER. The *PRB* liabilities of early adopters are relatively lower than those of firms disclosing the liability without formally adopting the standard; the liabilities of the latter are lower than the liabilities of firms adopting at the mandatory adoption date.

Second, we consider the relation between the firm's adoption strategy and its renegotiation activities.

PREDICTION 4—RENEGOTIATIONS. Firms adopting at the mandatory adoption date are more involved in renegotiating their *PRB* liabilities than early adopters. In addition, the *PRB* liabilities of firms involved in renegotiations exceed those of firms not involved in such renegotiations.

Finally, we summarize our predictions regarding the market reaction to adoption/disclosure announcements.

PREDICTION 5—MARKET REACTION. The average market reaction to early adoptions of the standard is positive, and higher than the average market reaction to disclosures of the expected liability without formal adoption.

3. Sample, Variables, and Tests

3.1 SAMPLE SELECTION AND DATA SOURCES

We collected and analyzed data on the following possible decisions by firms: (1) adopt *SFAS No. 106* prior to fiscal 1992 (we refer to these firms as 1991 adopters); (2) disclose the *PRB* liability in 1991 without formal adoption (1991 disclosers); (3) adopt *SFAS No. 106* in fiscal 1992 without disclosing the *PRB* obligation in 1991 (1992 adopters); and (4) adopt *SFAS No. 106* in fiscal 1993 without disclosing in 1991 (1993 adopters).

For each firm identified in the *CONEXUS* and *SEC* libraries of the *LEXIS-NEXIS* database as having adopted *SFAS No. 106* by 1992 fiscal year-end, we examined the firm's financial statements to determine the method of adoption, the liability recorded, and other information items

⁶ If a disclosed liability is viewed as less reliable than a recognized liability (e.g., if auditors apply less scrutiny to voluntary footnote disclosures than to recognized items), managers would have more discretion over a disclosed liability than over a recognized one, which would result in more favorable market reaction to early recognition than to early disclosure.

required under *SFAS No. 106*. We also searched the *CONEWS* and *SEC* libraries to identify firms disclosing the *PRB* liability in fiscal year 1991 but not adopting *SFAS No. 106*.⁷ To be included in our sample of disclosers, the firm had to disclose either a point estimate or a range of the expected *PRB* liability. Firms that provided an estimate of their future expenses or described the effects of *SFAS No. 106* as immaterial were not included. A sample of 105 firms that neither adopted *SFAS No. 106* in their 1992 financial statements nor disclosed their *PRB* liability in fiscal year 1991 was selected from Amir's [1993] sample of 556 *Compustat* firms with at least \$25 million in pension assets.

As a result of this process, we obtained four samples: 103 1991 adopters, 116 1991 disclosers, 262 1992 adopters that did not disclose in 1991, and 105 1993 adopters that did not disclose in 1991. Of the 116 1991 disclosers, 57 (59) adopted *SFAS No. 106* in 1992 (1993). In total, we collected data for 586 different firms.⁸ We deleted from our sample public utilities and financial services firms (mainly banks and insurance companies), which are subject to additional accounting-based regulations. In addition, we deleted a few firms that adopted the standard prospectively, rather than by using the catch-up method. As a result, our samples were reduced to 90 1991 adopters, 76 1991 disclosers, 210 1992 adopters, and 79 1993 adopters.⁹ Out of the 76 1991 disclosers, 52 firms adopted *SFAS No. 106* in 1992, while 24 adopted in 1993. These companies are not included in the 1992 and 1993 adopter samples.¹⁰ Table 1 presents information on the samples used in this study.

Where possible, we determined the earliest date of adoption/disclosure from the *SEC* and *CONEWS* libraries or by requesting the press release from the firm. Otherwise, we used the filing date of the first quarterly report (10-Q) that included information on the adoption/disclosure of *SFAS No. 106*. The earliest date for adopters is defined as the date when the liability and the adoption were announced. We retrieved financial statement information from the *Compustat* annual and quarterly files, security returns from the *CRSP* daily and monthly files, and *PRB* information from financial statement footnotes.

⁷ We searched the *CONEWS* and *SEC* libraries rather than the *NAARS* library because information items such as press releases and *SEC* filings are dated.

⁸ Based on *Compustat* items 330 (accrued *PRB* obligation) and 292 (periodic *PRB* cost) of 3,858 industrial *Compustat* firms, only 434 firms reported a nonmissing value. Thus, many firms apparently do not sponsor a *PRB* plan.

⁹ Thirty-four percent of the original disclosers were eliminated because of industry restrictions, consistent with financial companies and public utilities opting to delay adoption until regulators adjust the capital requirements and rate-making process to the new accounting pronouncement.

¹⁰ Sixty-nine out of the 79 1993 adopters disclosed a point estimate or a range of obligations in their 1992 financial statements. Therefore, we do not consider 1992 disclosers separately.

TABLE 1
Timing the Adoption/Disclosure of SFAS No. 106
Samples by Adoption/Disclosure Fiscal Year^a

Sample ^b	Fiscal Year		
	1991	1992	1993
1. 1991 Adopters (90 Firms)	90 Adopt	n.a.	n.a.
2. 1991 Disclosers (76 firms)	76 Disclose	52 Adopt ^c 24 Disclose	n.a. 24 Adopt
3. 1992 Adopters (210 firms)	210 Delay	210 Adopt	n.a.
4. 1993 Adopters (79 firms)	79 Delay	69 Disclose 10 Delay ^d	79 Adopt

^aThe three alternatives available to firms during fiscal years 1991–93 are Adopt (recognition of the *PRB* obligation according to *SFAS No. 106*), Disclose (disclosure of the *PRB* obligation in notes to the financial statements), and Delay (delay adoption/disclosure for at least one fiscal year).

^bSample firms are listed in the *Compustat* database and sponsor a defined benefit *PRB* plan. Financial institutions and public utilities are excluded.

^c1991 disclosers that adopted in 1992 (1993) are referred to as *D91A92* (*D91A93*).

^dFirms that disclosed in 1992 and adopted in 1993 are included in the 1993 adopters sample.

3.2 VARIABLES AND TESTS

We test Prediction 1—Leverage by using the ratio of debt to total assets measured with 1991 data:¹¹

$$DEBT = \frac{\text{Book Value of Debt}}{\text{Market Value of Equity} + \text{Book Value of Debt}}.^{12}$$

We expect the following relations:

$$DEBT_{91 \text{ adopters}} \leq DEBT_{91 \text{ disclosers}} \leq DEBT_{93 \text{ adopters}}. \quad (1a)$$

$$DEBT_{91 \text{ adopters}} \leq DEBT_{92 \text{ adopters}} \leq DEBT_{93 \text{ adopters}}. \quad (1b)$$

The second prediction (Earnings Changes) is tested using the following variable:

$$EC_t = ABS \left((EPS_t^* - EPS_{t-1}) / P_{t-1} \right),$$

where EPS_t^* denotes earnings-per-share adjusted for *PRB* expenses, t is the decision year, P_{t-1} denotes the firm's share price at the end of the fiscal year prior to the decision year, and ABS denotes the absolute

¹¹ Duke and Hunt [1990] show that leverage variables such as the debt to total assets ratio are good proxies for proximity to debt constraints.

¹² Book value of debt is defined as total assets minus book value of equity, deferred tax liability, convertible preferred shares, minority interests, and *PRB* liability when applicable.

value function.¹³ Fiscal 1991 is a decision year for all four samples, and 1992 is a decision year for 1992 and 1993 adopters. We expect earnings changes to be associated with adoption timing in the following ways:

$$EC_{91}(\text{sample } j) \leq EC_{91}(91 \text{ Adopters}) \quad (2a)$$

where sample $j = \{91 \text{ Disclosers}, 92 \text{ Adopters}, 93 \text{ Adopters}\}$.

$$EC_{92}(93 \text{ Adopters}) \leq EC_{92}(92 \text{ Adopters}). \quad (2b)$$

Prediction 3 is tested by comparing the *PRB* liability for 1991 adopters with that of 1991 disclosers, and the *PRB* liability for the latter with that of 1993 adopters. We also compare *PRB* liability figures for firms adopting the standard in fiscal 1991 with those of firms adopting the standard in fiscal 1992 and 1993. These tests assume that investors expect the *PRB* liability to increase with firm size and that the relative magnitude of the *PRB* liability is the primary decision variable in making the adoption/disclosure/delay choice. We use the accumulated benefit obligation at the year of adoption (pretax liability) deflated by 1991 total assets as a test variable and predict the following orderings:¹⁴

$$Liability_{91\text{adopters}} \leq Liability_{91\text{disclosers}} \leq Liability_{93\text{adopters}} \quad (3a)$$

$$Liability_{91\text{adopters}} \leq Liability_{92\text{adopters}} \leq Liability_{93\text{adopters}} \quad (3b)$$

SFAS No. 81 (*FASB* [1984]) required disclosure of *PRB* cash payments to retirees prior to the adoption of *SFAS No. 106*, to provide information to investors for estimating *PRB* liabilities. In this case, management's private information (denoted *UL*) is the difference between the actual liability and the one estimated using cash payments to retirees (and firm size). To calculate *UL*, we estimated the following regression for all sample firms:

$$\frac{Liab_{it}}{TAS_{it}} = \alpha_0 + \alpha_1 \frac{Cash_{it-1}}{TAS_{it}} + \alpha_2 SIZE_{it} + \varepsilon_t \quad (4)$$

where $Liab_{it}/TAS_{it}$ is firm i 's accumulated *PRB* liability deflated by total assets at year-end t , where t represents the adoption year for 1991, 1992,

¹³ To test a similar hypothesis, Ali and Kumar [1994] construct a dummy variable equal to one if the firm's earnings over book value of equity are in the sample's first or tenth decile, and zero otherwise. We repeated our tests using both this variable and earnings levels divided by stock price and obtained similar results.

¹⁴ If a firm disclosed the after-tax liability, we divided this number by 0.66 (one minus the statutory tax rate) to obtain a pretax measure. Also, 1991, 1992, and 1993 *PRB* liabilities are calculated using different estimation parameters. In particular, 1993 adopters use lower discount rates and health care cost trend rates. Adjusting for these parameter changes yields results similar to those reported. Finally, deflating by market value of equity at 1991 fiscal year-end instead of by 1991 total assets does not affect our inferences.

and 1993 adopters and the disclosure year (fiscal 1991) for 1991 disclosers. $Cash_{it-1}/TAS_{it}$ is firm i 's cash payments to retirees in the year prior to the year of adoption/disclosure, deflated by total assets, and $SIZE_{it}$ is the natural logarithm of the firm's total assets. Estimating (4) yielded the following results:

$$\alpha_0 = -0.049 \ (t = 1.7), \alpha_1 = 12.473 \ (t = 36.4), \\ \alpha_2 = 0.004 \ (t = 2.7), \bar{R}^2 = 0.75, n = 455.$$

Then, for each observation, we calculated UL as:

$$UL_{it} = \frac{Liab_{it}}{TAS_{it}} + 0.049 - 12.473 \frac{Cash_{it-1}}{TAS_{it}} - 0.004 SIZE_{it}.$$

To test Prediction 4, we searched the financial statements of sample firms for evidence of a *PRB* plan amendment or termination. Plan changes resulting from bankruptcy, asset sales, restructuring, new legislation (mainly affecting railroad and mining workers), or the initiation of multiemployer and voluntary contribution accounts (*VEBA*) were not considered.

We define *REN1* as an indicator variable equal to one if the firm amended its plan during 1991–93, and zero otherwise. We also construct *REN2* as the percentage change in the liability due to plan amendments, calculated as follows:

$$\frac{\text{Dollar Value of Plan Amendment}}{\text{PRB Obligation at the Adoption Year} + \text{Dollar Value of Plan Amendment}}.$$

We expect firms adopting the standard in 1992 and 1993 to be more likely to amend their plans than 1991 adopters.

$$REN1_{91adopters} \leq REN1_{92adopters} \leq REN1_{93adopters}. \quad (5a)$$

$$REN2_{91adopters} \leq REN2_{92adopters} \leq REN2_{93adopters}. \quad (5b)$$

In addition, we expect firms that amended their plans to have larger preamendment liabilities.

$$Liab_{t \text{ adopters, no amendments}} \leq Liab_{t \text{ adopters, with amendments}} \quad (6) \\ t = 1991, 1992, 1993.$$

We also compared the renegotiation activities of 1991 disclosers that adopted in 1992 (*D91A92*) with those of 1991 disclosers that adopted in 1993 (*D91A93*), *D91A92* firms with 1992 adopters, and *D91A93* firms with 1993 adopters.

To test Prediction 5, we computed for each firm a six-day cumulative market-adjusted return (*CMAR*) starting three trading days prior to the date of adoption/disclosure and ending two trading days after this date.

$$CMAR_i = \left(\prod_{t=-3}^2 (1 + RET_{it} - SP500_t) \right) - 1,$$

where RET_{it} is firm i 's daily return at time t , $SP500_t$ is the daily return on the *S&P 500* portfolio at time t , and day 0 is the day of adoption.¹⁵ Prediction 5 implies:

$$0 \leq CMAR_{91\text{ adopters}} \geq CMAR_{91\text{ disclosers}}. \quad (7)$$

Pooling across pairs of samples, we also regressed $CMAR_i$ on firm size (log of total assets), UL (unexpected liability), and a sample-indicator variable ($INDICATOR$).¹⁶

$$CMAR_i = \gamma_0 + \gamma_1 SIZE_i + \gamma_2 UL_i + \gamma_3 INDICATOR_i + \varepsilon_i. \quad (8)$$

Refining the test in (7), equation (8) isolates the firm's timing and method choice from size and unexpected liabilities. Table 2 contains a summary of the variables used in the study.

4. Results

4.1 UNIVARIATE TESTS

Table 3 presents results of univariate t -tests and Wilcoxon tests of our predictions. The table compares 1991 adopters with 1992 (panel A) and 1993 adopters (panel B), and 1992 with 1993 adopters (panel C).

Contrary to Prediction 1, debt ratios of 1991 adopters (mean 0.46, median 0.45) are higher than those of 1992 adopters (mean 0.41, median 0.40) and 1993 adopters (mean 0.44, median 0.41). The difference in debt ratios between 1991 and 1992 adopters has a p -value of 0.06 (0.07) using a one-tail t -test (Wilcoxon test), while the differences between 1991 and 1993 adopters and between 1992 and 1993 adopters are not significant at the 0.10 level.

Consistent with Prediction 2, the mean and median of earnings changes, EC_{91} , for 1991 adopters is larger than that of 1992 adopters at the 0.01 level for both the t -test and the Wilcoxon test, which suggests that income management may be a motive in the adoption strategy. The mean EC_{91} for 1991 adopters exceeds that of 1993 adopters, although the difference is not significant at the 0.10 level. Counter to Prediction 2, EC_{92} for 1992 adopters (mean 0.08, median 0.02) is smaller than that of 1993 adopters (mean 0.10, median 0.02); the difference is not significant at the 0.10 level.

¹⁵ Availability of *CRSP* data and identification of adoption/disclosure dates reduced the samples for this analysis to 81, 74, 199, and 77 observations for 1991 adopters, 1991 disclosers, and 1992 and 1993 adopters, respectively.

¹⁶ We consider six pairs using 1991, 1992, and 1993 adopters and 1991 disclosers.

TABLE 2
Variable Definitions

<i>SIZE</i>	Natural logarithm of the firm's total assets (in dollars) measured at 1991 fiscal year-end.
<i>DEBT</i>	1991 book value of total debt divided by 1991 market value of equity plus the book value of total debt. Debt is defined as total assets less book value of equity, deferred tax liability, convertible preferred shares, minority interests, and <i>PRB</i> liability when applicable.
<i>EC_t</i>	The absolute value of the difference between adjusted earnings-per-share (<i>EPS</i>) in the decision year, <i>t</i> , and <i>EPS</i> in the prior year, deflated by beginning-of-period stock price. Adjustment is made for <i>PRB</i> expense included in <i>EPS</i> . 1991 is a decision year for all samples, while 1992 is an additional decision year for 1992 and 1993 adopters.
<i>PRB Liab/TAS</i>	Accumulated postretirement benefits liability at the year of adoption/disclosure deflated by 1991 total assets.
<i>UL</i>	The difference between actual and expected liability based on firm size and cash payment to retirees in the year prior to the year of adoption/disclosure, deflated by total assets at the year of adoption.
<i>REN 1</i>	Renegotiation indicator equals one if the firm amended its plan during 1991–93 and zero otherwise.
<i>REN 2</i>	Percentage change of the <i>PRB</i> liability due to plan amendments.
<i>CMAR</i>	Cumulative market-adjusted return over a six-day window starting three trading days prior to the adoption/disclosure announcement of <i>SFAS No. 106</i> . The market return is represented by the <i>S&P 500</i> portfolio.
<i>CNR</i>	Cumulative monthly returns over the five years ending December 1993 calculated for portfolios of 1991–93 adopters and 1991 disclosers. Monthly returns are normalized by subtracting the mean return over all participating firms in the four portfolios.

Consistent with Prediction 3, 1991 adopters have *PRB* liabilities smaller than those of 1992 adopters, which in turn are smaller than liabilities for 1993 adopters. The *PRB* liability deflated by total assets (*PRB Liab/TAS*) of 1991 adopters (mean 0.06, median 0.03) is smaller than that of 1992 adopters (mean 0.07, median 0.05). Also, *UL* for 1991 adopters (mean -0.02, median -0.02) is smaller than that of 1992 adopters (mean -0.01, median -0.01). However, none of these differences is statistically significant at the 0.10 level. Comparing 1991 and 1993 adopters (panel B), the *PRB* liability deflated by total assets of 1991 adopters is smaller than that of 1993 adopters (mean 0.11, median 0.08) at the 0.01 level. Similar results are obtained for *UL*. Panel C of table 3 contrasts 1992 and 1993 adopters; 1992 adopters had smaller liabilities than 1993 adopters, significant at the 0.01 level.

Consistent with Prediction 4, early adopters are less involved in *PRB* plan amendments. In particular, 31% (38%) of 1992 (1993) adopters amended their *PRB* plans, while only 10% of 1991 adopters did so. The differences between 1991 and 1992 adopters and between 1991 and

TABLE 3
Pairwise Comparisons of 1991, 1992, and 1993 Adopters of SFAS No. 106^a

	Mean	Median	Expected Relation	Mean	Median	P-Values	
						t-Test	W-Test ^b
Panel A: 1991 Adopters vs. 1992 Adopters ^c							
	1991 Adopters			1992 Adopters			
SIZE	21.01	20.87	?	21.05	21.09	0.87	0.58
DEBT	0.46	0.45	<	0.41	0.40	0.06	0.07
EC ₉₁	0.16	0.05	>	0.08	0.03	0.00	0.01
PRB Liab/TAS	0.06	0.03	<	0.07	0.05	0.21	0.13
UL	-0.02	-0.02	<	-0.01	-0.01	0.41	0.33
REN 1	0.10	0	<	0.31	0	0.00	0.00
REN 2	0.00	0	<	0.04	0	0.00	0.00
Panel B: 1991 Adopters vs. 1993 Adopters							
	1991 Adopters			1993 Adopters			
SIZE	21.01	20.87	?	21.10	21.22	0.72	0.41
DEBT	0.46	0.45	<	0.44	0.41	0.36	0.32
EC ₉₁	0.16	0.05	>	0.13	0.05	0.18	0.34
PRB Liab/TAS	0.06	0.03	<	0.11	0.08	0.00	0.00
UL	-0.02	-0.02	<	0.01	0.01	0.02	0.01
REN 1	0.10	0	<	0.38	0	0.00	0.00
REN 2	0.00	0	<	0.03	0	0.00	0.00
Panel C: 1992 Adopters vs. 1993 Adopters							
	1992 Adopters			1993 Adopters			
SIZE	21.05	21.09	?	21.10	21.22	0.80	0.81
DEBT	0.41	0.40	<	0.44	0.41	0.13	0.17
EC ₉₂	0.08	0.02	>	0.10	0.02	0.40	0.91
PRB Liab/TAS	0.07	0.05	<	0.11	0.08	0.00	0.00
UL	-0.01	-0.01	<	0.01	0.01	0.01	0.01
REN 1	0.31	0	<	0.38	0	0.13	0.13
REN 2	0.04	0	<	0.03	0	0.32	0.43

^aSamples include 90, 210, and 79 observations for 1991, 1992, and 1993 adopters, respectively.

^bStatistical tests include a parametric *t*-test and a nonparametric Wilcoxon signed-rank test. *P*-values of one-tail tests are reported when the expected relation is predicted; otherwise a two-tail test is reported.

^cSee table 2 for variable definitions.

1993 adopters are significant at the 0.01 level. Similar results are obtained with *REN2*, the percentage change in *PRB* obligations due to plan amendments.

To test the relation between the liabilities of firms that amended their *PRB* plans and firms that did not (equation (6) above), we partitioned adopters into those with and without plan amendments, and examined the difference between their *PRB* liabilities using our two measures (*PRB Liab/TAS* and *UL*). Overall, the evidence (not reported) is consistent with Prediction 4; the *PRB* liability of firms with plan amendments exceeds that of firms without amendments. The median *Liab/TAS* and median *UL* of the 81 1991 adopters without plan amendments (0.03 and -0.02) are smaller than those of the nine 1991 adopters that amended

TABLE 4
Comparing 1991 Disclosers with 1991, 1992, and 1993 Adopters of SFAS No. 106^a

	Mean	Median	Expected Relation	Mean	Median	<i>P</i> -Values	
						<i>t</i> -Test	<i>W</i> -Test ^b
Panel A: 1991 Adopters vs. 1991 Disclosers^c							
	1991 Adopters			1991 Disclosers			
<i>SIZE</i>	21.01	20.87	?	21.91	22.08	0.00	0.00
<i>DEBT</i>	0.46	0.45	<	0.46	0.46	0.50	0.48
<i>EC₉₁</i>	0.16	0.05	>	0.07	0.02	0.01	0.01
<i>PRB Liab/TAS</i>	0.06	0.03	<	0.13	0.07	0.02	0.00
<i>UL</i>	-0.02	-0.02	<	0.02	0.01	0.03	0.00
Panel B: 1992 Adopters vs. 1991 Disclosers							
	1992 Adopters			1991 Disclosers			
<i>SIZE</i>	21.05	21.09	?	21.91	22.08	0.00	0.00
<i>DEBT</i>	0.41	0.40	?	0.46	0.46	0.12	0.12
<i>EC₉₁</i>	0.08	0.03	?	0.07	0.02	0.50	0.81
<i>PRB Liab/TAS</i>	0.07	0.05	?	0.13	0.07	0.00	0.00
<i>UL</i>	-0.01	-0.01	?	0.02	0.01	0.03	0.01
Panel C: 1993 Adopters vs. 1991 Disclosers							
	1993 Adopters			1991 Disclosers			
<i>SIZE</i>	21.10	21.22	?	21.91	22.08	0.00	0.00
<i>DEBT</i>	0.44	0.41	?	0.46	0.46	0.73	0.59
<i>EC₉₁</i>	0.13	0.05	?	0.07	0.02	0.05	0.12
<i>PRB Liab/TAS</i>	0.11	0.08	?	0.13	0.07	0.48	0.96
<i>UL</i>	0.01	0.01	?	0.02	0.01	0.94	0.80

^aSamples are 90, 210, and 79 1991, 1992, and 1993 adopters and 76 1991 disclosers.

^bStatistical tests include a parametric *t*-test and a nonparametric Wilcoxon signed-rank test. *P*-values of two-tail tests are reported when the expected relation is not predicted (?); otherwise a one-tail test is reported.

^cSee table 2 for variable definitions.

their plans (0.04 and 0.00). Possibly due to the small number of plan-amending 1991 adopters in our sample, no differences are significant at the 0.10 level. We also find that the median *Liab/TAS* and *UL* of the 146 1992 adopters that did not amend their plans (0.05, -0.01) are smaller than those of the 64 that did amend (0.11, 0.01), at the 0.02 level. For 1993 adopters, the *PRB* liabilities are similar across firms that did and did not amend their plans.

Table 4 compares 1991 disclosers with 1991 adopters (panel A), with 1992 adopters (panel B), and with 1993 adopters (panel C). Counter to Prediction 1, we find no difference between the leverage ratios of 1991 disclosers and 1991 adopters. Consistent with Prediction 2, the *EC₉₁* of 1991 disclosers (mean 0.07, median 0.02) is smaller than that of 1991 adopters (mean 0.16, median 0.05) at the 0.01 level. As predicted, measures of the *PRB* obligation of 1991 disclosers exceed those of 1991 and 1992 adopters (at the 0.02 and 0.03 levels using a *t*-test and a Wilcoxon test).

TABLE 5
Comparing 1992 and 1993 SFAS No. 106 Adopters Based on Their 1991 Disclosure Activity^a

			Expected			P-Values	
	Mean	Median	Relation	Mean	Median	<i>t</i> -Test	W-Test ^b
Panel A: 1991 Disclosers/1992 Adopters (<i>D91A92</i>) vs. 1991 Disclosers/1993 Adopters (<i>D91A93</i>)^c							
	<i>D91A92</i>			<i>D91A93</i>			
<i>SIZE</i>	22.49	22.45	?	21.57	21.65	0.04	0.03
<i>DEBT</i>	0.46	0.46	?	0.42	0.40	0.89	0.87
<i>EC</i> ₉₁	0.06	0.02	?	0.11	0.03	0.21	0.99
<i>PRB Liab/TAS</i>	0.10	0.08	<	0.13	0.10	0.14	0.29
<i>UL</i>	−0.00	−0.01	<	0.01	0.02	0.00	0.00
<i>REN1</i>	0.53	1	?	0.35	0	0.09	0.01
<i>REN2</i>	0.06	0.00	?	0.03	0	0.01	0.01
Panel B: 1991 Disclosers/1992 Adopters (<i>D91A92</i>) vs. 1992 Adopters							
	<i>D91A92</i>			1992 Adopters			
<i>SIZE</i>	22.49	22.45	?	21.05	21.09	0.00	0.00
<i>DEBT</i>	0.46	0.46	?	0.41	0.40	0.67	0.69
<i>EC</i> ₉₁	0.06	0.02	?	0.08	0.03	0.29	0.79
<i>PRB Liab/TAS</i>	0.10	0.08	?	0.07	0.05	0.01	0.00
<i>UL</i>	−0.00	−0.01	?	−0.01	−0.01	0.71	0.37
<i>REN1</i>	0.53	1	?	0.31	0	0.00	0.00
<i>REN2</i>	0.06	0.00	?	0.04	0	0.07	0.01
Panel C: 1991 Disclosers/1993 Adopters (<i>D91A93</i>) vs. 1993 Adopters							
	<i>D91A93</i>			1993 Adopters			
<i>SIZE</i>	21.57	21.65	?	21.10	21.22	0.16	0.21
<i>DEBT</i>	0.42	0.40	?	0.44	0.41	0.62	0.63
<i>EC</i> ₉₁	0.11	0.03	?	0.13	0.05	0.15	0.70
<i>PRB Liab/TAS</i>	0.13	0.10	?	0.11	0.08	0.29	0.16
<i>UL</i>	0.01	0.02	?	0.01	0.01	0.79	0.29
<i>REN1</i>	0.35	0	?	0.38	0	0.81	0.81
<i>REN2</i>	0.06	0	?	0.03	0	0.31	0.79

^aWe compare 1991 disclosers that adopted SFAS No. 106 in 1992 (D91A92) with 1991 disclosers that adopted in 1993 (D91A93) (panel A), D91A92 firms with 1992 adopters that did not disclose in 1991 (panel B), and D91A93 firms with 1993 adopters that did not disclose in 1991 (panel C). There are 90, 210, and 79 1991, 1992, and 1993 adopters, 52 D91A92 firms, and 24 D91A93 firms.

^bStatistical tests include a parametric *t*-test and a nonparametric Wilcoxon signed-rank test. *P*-values for two-tail tests are reported when the relation is not predicted (?); otherwise a one-tail test is reported.

^cSee table 2 for variable definitions.

In table 5 we compare 1991 disclosers that adopted in 1992 (D91A92) with 1991 disclosers that adopted in 1993 (D91A93) (panel A), D91A92 firms with 1992 adopters (panel B), and D91A93 with 1993 adopters (panel C). Consistent with Prediction 3, *UL* of D91A92 firms is smaller than that of D91A93 firms at the 0.01 level. Also, D91A92 firms are more involved in plan amendments than D91A93 firms (53% versus 35%, significant at the 0.05 level). Although not considered in our predictions, D91A92 firms have larger *PRB* obligations and are more involved in plan

TABLE 6
Adoption Timing Motives—Multivariate Logit Analysis^a
Pairwise Comparisons Using 1991, 1992, and 1993 Adopters of SFAS No. 106

Variables ^b	Participating Samples		
	1	2	3
	91 Adopt vs. 92 Adopt	91 Adopt vs. 93 Adopt	92 Adopt vs. 93 Adopt
<i>Intercept</i> (?) ^c	3.07 (0.12) ^d	0.35 (0.89)	2.28 (0.27)
<i>SIZE</i> (+)	0.11 (0.25)	0.04 (0.76)	-0.02 (0.81)
<i>DEBT</i> (-)	-0.39 (0.62)	-1.34 (0.20)	-0.73 (0.34)
<i>EC</i> _{91, 91, 92} (+) ^e	2.10 (0.01)	2.26 (0.04)	-0.37 (0.69)
<i>PRB Liab/TAS</i> (-)	-1.19 (0.75)	-6.73 (0.04)	-5.27 (0.03)
<i>UL</i> (-)	-1.05 (0.87)	-4.00 (0.46)	-0.17 (0.97)
<i>REN1</i> (-)	-1.26 (0.00)	-1.63 (0.00)	-0.15 (0.64)
	92 Adopt—0 91 Adopt—1	93 Adopt—0 91 Adopt—1	93 Adopt—0 92 Adopt—1
Model χ^2	40.287	31.052	14.434
Model <i>p</i> -Value	0.000	0.000	0.025

^aThe table presents a two-sample logit analysis of the *SFAS No. 106* adoption timing decision. Samples include 90, 210, and 79 1991, 1992, and 1993 adopters.

^bSee table 2 for variable definitions.

^cThe expected sign of the coefficients (+, -, or ?) is noted next to the variable's name.

^d*P*-values of a χ^2 -test are presented below the coefficients.

^e*EC* ₉₁ is used as an independent variable in columns 1 and 2 and *EC* ₉₂ in column 3.

amendments (53% versus 31%) than 1992 adopters. No significant differences exist between *D91A93* firms and 1993 adopters (panel C).

4.2 MULTIVARIATE LOGIT ANALYSIS

Table 6 presents a multivariate analysis of the early adoption decision. The first column analyzes 1991 and 1992 adopters; the second column examines 1991 versus 1993 adoption firms, and column three compares 1992 with 1993 adopters. In addition to *PRB Liab/TAS* and *UL* (designed to capture the impact of adoption) and *REN1* (designed to capture renegotiation), we include *SIZE*, *DEBT*, and *EC* as independent variables (*EC* ₉₁ in columns one and two and *EC* ₉₂ in column three).

PRB Liab/TAS (the relative size of the liability) plays a significant role in the decision whether to adopt in 1991 or delay adoption until 1993 (-6.73, *p* = 0.04 in the second column), and whether to adopt in 1992 or delay until 1993 (-5.27, *p* = 0.03 in column three). The *UL* variable has the predicted negative sign but is not significant in any case. We attribute this lack of significance to the correlation between *UL* and *PRB*

Liab/TAS.¹⁷ As predicted, the renegotiation variable, *REN1*, has a negative coefficient in all three cases (significant at the 0.01 level in two cases). Consistent with Prediction 2, the coefficient on *EC* is positive and significant at the 0.05 level in columns one and two. Neither *SIZE* nor *DEBT* is different from zero at the 0.10 level.

To probe the motivations of firms without plan amendments, we repeated the analysis in table 6 after eliminating firms that amended their *PRB* plans (not reported). The coefficients on *DEBT* are negative in all three cases, and significant at the 0.10 level for 1991 versus 1993 adopters and 1992 versus 1993 adopters, suggesting that debt constraints motivated certain firms to delay adoption. The coefficient on *EC*₉₁ remains positive and significant at the 0.05 level for 1991 versus 1992 adopters. The *PRB* liability remains negative in all cases and significant at the 0.10 level or better for 1991 versus 1993 adopters and for 1992 versus 1993 adopters. Consistent with our predictions, the size of the *PRB* liability explains adoption timing for firms not involved in plan amendments.

Table 7 presents a multivariate analysis of the recognize versus disclose decision. Columns one, two, and three compare 1991 disclosers with 1991, 1992, and 1993 adopters, respectively. The negative coefficients on *SIZE* (*p*-values of 0.00) indicate that disclosing firms are larger than nondisclosing firms. As predicted, the coefficients on *DEBT* are negative but significant (at the 0.10 level) only in column two. *EC*₉₁ is positive in all three cases and significant (at the 0.05 level) in columns one and three; 1991 adopters experienced larger 1991 earnings changes than did 1991 disclosers. The coefficient on *PRB Liab/TAS* in column one is negative at the 0.05 level, and the coefficients on *UL* are negative in all three columns but different from zero at the 0.10 level or better in columns one and two.¹⁸

4.3 MARKET TESTS

Table 8 presents evidence on the market reaction to adoption/disclosure announcements (Prediction 5). Panel A presents the distribution of *CMAR* (six-day cumulative market-adjusted return starting three trading days prior to the adoption/disclosure date) for 1991, 1992, and 1993 adopters and 1991 disclosers. Consistent with Prediction 5, *CMAR* for 1991 adopters is, on average, positive (1.8%) and significant at the 0.02 level.¹⁹ For 1992 adopters and 1991 disclosers, the announcement of

¹⁷ The Pearson correlation between *UL* and *PRB Liab/TAS* is between 0.69 (columns two and three) and 0.77 (column one). When *PRB Liab/TAS* is removed from the model, *UL* becomes highly significant.

¹⁸ Using a multivariate logit analysis, we also compared *D91A92* firms with *D91A93* firms, *D91A92* firms with 1992 adopters, and *D91A93* firms with 1993 adopters. The results (not reported) indicate that 1991 disclosers with smaller *ULs* and greater involvement in plan renegotiations adopted *SFAS No. 106* in 1992.

¹⁹ Espahbodi, Strock, and Tehranian [1991] showed that the stock prices of firms most likely to be affected negatively by *SFAS No. 106* declined when the *Exposure Draft* was released. Thus, market participants partially anticipated the effects of this standard.

TABLE 7
Adoption versus Disclosure—Multivariate Logit Analysis^a
Comparing 1991 Disclosers with 1991, 1992, and 1993 Adopters of SFAS No. 106

Variables ^c	Participating Samples ^b		
	1 91 Disclose vs. 91 Adopt	2 91 Disclose vs. 92 Adopt	3 91 Disclose vs. 93 Adopt
<i>Intercept</i> (?,?,?) ^d	8.64 (0.00) ^e	10.18 (0.00)	9.04 (0.00)
<i>SIZE</i> (+,?,?)	-0.39 (0.00)	-0.40 (0.00)	-0.41 (0.00)
<i>DEBT</i> (-,?,?)	-0.66 (0.52)	-1.36 (0.08)	-0.94 (0.32)
<i>EC</i> ₉₁ (+,?,?) ^f	4.65 (0.01)	1.96 (0.18)	3.30 (0.04)
<i>PRB Liab/TAS</i> (-,?,?)	-5.79 (0.05)	-0.81 (0.80)	0.66 (0.80)
<i>UL</i> (-,?,?)	-12.70 (0.02)	-9.63 (0.09)	-4.55 (0.35)
	91 Disclose—0 91 Adopt—1	91 Disclose—0 92 Adopt—1	91 Disclose—0 93 Adopt—1
Model χ^2	37.762	34.289	20.540
Model <i>P</i> -Value	0.000	0.000	0.001

^aTwo-sample logit analysis of the decision whether to disclose the *PRB* obligation in 1991 without a formal adoption or to adopt without disclosure.

^bSamples are 90, 210, and 79 1991, 1992, and 1993 adopters and 76 1991 disclosers.

^cSee table 2 for variable definitions.

^dThe expected sign of the coefficients (+, -, or ?), by column, is noted next to the variable's name.

^e*P*-values of a χ^2 -test are presented below the coefficients.

^f*EC*₉₁ is used as an independent variable in all columns.

information related to *SFAS No. 106* was a nonevent. Counter to our expectations, the reaction to 1993 adoption announcements was 2.1% ($p = 0.00$). 1991 adopters experienced higher returns than 1991 disclosers, significant at the 0.04 level using a one-tail *t*-test, and at the 0.09 level using a Wilcoxon χ^2 -test.

Panel B of table 8 presents results of regressing *CMAR* on size, *UL*, and a sample indicator variable, for each pair of samples. Consistent with Prediction 5, results in columns one and four indicate that 1991 adopters had higher returns than 1992 adopters and 1991 disclosers. Also, 1993 adopters experienced higher returns than 1992 adopters, possibly because many 1993 adopters amended their *PRB* plans to reduce benefits and the market reaction may be driven by this information.

A conventional event study does not provide insights about whether "delay" constitutes bad news, because the "delay" strategy has no specific event date. To explore this strategy, we calculated mean monthly returns from January 1989 to December 1993 (60 months) for portfolios of 1991 adopters, 1991 disclosers, 1992 adopters, and 1993 adopters.²⁰ To remove

²⁰ The *Exposure Draft* which preceded *SFAS No. 106* was published in February 1989; December 1993 is the fiscal year-end of most of our 1993 adopters.

TABLE 8
Differences in Cumulative Market-Adjusted Returns (CMAR) over a Six-Day
Window around the Adoption/Disclosure Announcement of SFAS No. 106

Panel A: Descriptive Statistics of CMAR						
	Mean	Median	Standard Error	First Quartile	Third Quartile	T-Mean ≠ 0
1991 Adopters	1.8%	1.5%	8.9%	-2.10%	3.61%	2.0
1991 Disclosers	0.2%	0.0%	4.0%	-1.86%	2.67%	0.4
1992 Adopters	0.2%	-0.0%	6.2%	-2.44%	3.13%	0.5
1993 Adopters	2.1%	0.8%	6.9%	-1.40%	5.16%	2.6
Panel B: Regressing CMAR on SIZE, Unexpected PRB Liability (UL), and a Sample Indicator						
	Column Number					
	1	2	3	4	5	6
Indicator Values ^a	A91 = 0 A92 = 1	A91 = 0 A93 = 1	A92 = 0 A93 = 1	D91 = 0 A91 = 1	D91 = 0 A92 = 1	D91 = 0 A93 = 1
INTERCEPT	0.030 (0.5) ^b	0.105 (1.1)	0.020 (0.4)	0.051 (0.7)	0.003 (0.1)	0.080 (1.2)
INDICATOR	-0.018 (-2.0)**	-0.001 (-0.1)	0.020 (2.3)**	0.017 (1.9)*	-0.000 (-0.0)	0.017 (1.8)*
SIZE ^b	-0.000 (-0.2)	-0.004 (-0.9)	-0.000 (-0.3)	-0.002 (-0.7)	-0.000 (-0.0)	-0.003 (-0.5)
UL	-0.021 (-0.2)	0.080 (0.5)	-0.046 (-0.5)	0.077 (0.6)	-0.062 (-0.8)	0.020 (0.2)
\bar{R}^2	0.013	0.010	0.000	0.022	0.000	0.020

^aSamples of 1991 Adopters (A91), 1992 Adopters (A92), 1993 Adopters (A93), and 1991 Disclosers (D91) include 81, 199, 77, and 74 observations with available data, respectively.
^bSee table 2 for variable definitions.
^cTwo-tailed *t*-values are presented below the coefficients; *, ** denote significance at the 0.10 and 0.05 level, respectively.

market fluctuations and to emphasize the differences among the various portfolios during the test period, we subtracted the mean return over all participating firms in our four samples.²¹ Finally, we calculated CNR_{kt} —Cumulative Normalized Returns—for each portfolio over 60 months:

$$CNR_{kt} = \left(\prod_{t=1}^{\tau} (1 + RET_{kt} - ALLRET_t) \right) - 1,$$

where RET_{kt} is the mean return on portfolio k during month t ($t = 1, 2, \dots, 60$), and $ALLRET_t$ is the mean return over all portfolios during month t . Figure 1 plots these returns.

²¹ There are 73, 188, 75, and 70 available observations for 1991, 1992, and 1993 adopters and 1991 disclosers, respectively. Tests using market-adjusted returns yield similar results.

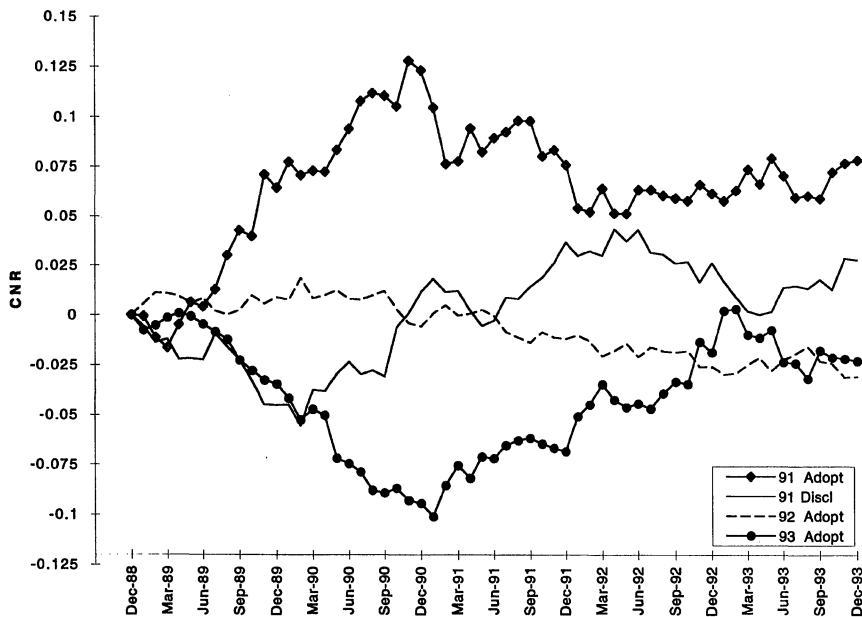


FIG. 1.—Cumulative normalized returns (*CNR*) for adoption/disclosure portfolios from January 1989 to December 1993. The lines on this graph represent the mean cumulative monthly return in excess of the total sample mean return for each of the four portfolios, calculated as follows:

$$CNR_{kt} = \left(\prod_{t=1}^{\tau} (1 + RET_{kt} - ALLRET_t) \right) - 1,$$

where RET_{kt} is the mean return on portfolio k during month t ($t = 1, 2, \dots, 60$), and $ALLRET_t$ is the mean return over all portfolios during month t . Available observations for this analysis are 73, 188, 75, and 70 for 1991, 1992, and 1993 adopters and 1991 disclosers.

1991 adopters have the highest cumulative normalized returns over the test period while 1993 adopters experienced the lowest cumulative returns. The difference in market performance between 1991 and 1993 adopters is due to the first half of the period, during which the *Exposure Draft* was published (February 1989), *SFAS No. 106* was issued (December 1990), and many of the 1991 adopters announced their adoption decisions (January–June 1991). During the second half of the period, the gap between 1993 and 1991 adopters is narrowed to about 10%.²²

²² The overall positive trend in 1993 returns for 1993 adopters may explain the positive returns observed around the 1993 adoption announcements.

5. Summary

This study investigates alternative information release methods in the context of *SFAS No. 106*, which governs the accounting for postretirement benefits other than pensions (*PRB*). In issuing *SFAS No. 106*, the *FASB* provided for an extended adoption period, during which firms could adopt the standard, disclose its effect without a formal adoption, or delay adoption. We argue that managers used the *SFAS No. 106* extended adoption period to convey their private information to the market. This argument rests on the assumption that managers and investors do not view recognition and disclosure as equivalent, perhaps because disclosed information is deemed less reliable than recognized information.

We find that early adopters had smaller *PRB* liabilities than either firms disclosing their liabilities without adoption or firms delaying adoption. Also, firms that adopted the standard in 1992 and 1993 were more involved than 1991 adopters in plan amendments. We also find that the market reacted favorably to an early adoption of *SFAS No. 106*, with a more favorable market reaction to early adopters than to disclosers. Finally, over the five years ending December 1993, we find that the market-adjusted return on a portfolio of 1991 adopters was significantly larger than the market-adjusted return on a portfolio of 1993 adopters.

REFERENCES

- ALI, A., AND K. R. KUMAR. "The Magnitudes of Financial Statement Effects and Accounting Choice: The Case of the Adoption of SFAS 87." *Journal of Accounting and Economics* 18 (July 1994): 89–114.
- AMIR, E. "The Market Valuation of Accounting Information: The Case of Post Retirement Benefits Other Than Pensions." *The Accounting Review* 68 (October 1993): 703–24.
- AMIR, E., AND J. LIVNAT. "Multiperiod Analysis of Early Adoption Motives: The Case of SFAS No. 106." *The Accounting Review* 71 (October 1996): 505–19.
- AMIR, E., AND A. ZIV. "Economic Consequences of Alternative Adoption Rules for New Accounting Standards." *Contemporary Accounting Research* 14 (1997).
- AYRES, F. L. "Characteristics of Firms Electing Early Adoption of SFAS 52." *Journal of Accounting and Economics* 8 (1986): 143–58.
- DALEY, L. A., AND R. L. VIGELAND. "The Effects of Debt Covenants and Political Costs on the Choice of Accounting Methods: The Case of Accounting for R&D Costs." *Journal of Accounting and Economics* 5, no. 3 (1983): 195–211.
- DUKE, J. C., AND H. G. HUNT III. "An Empirical Examination of Debt Covenant Restrictions and Accounting-Related Debt Proxies." *Journal of Accounting and Economics* 12 (January 1990): 45–63.
- DYE, R. A. "Disclosure of Nonproprietary Information." *Journal of Accounting Research* 23 (1985): 123–45.
- _____. "Proprietary and Nonproprietary Disclosures." *Journal of Business* 59 (1986): 331–66.
- ESPAHBODI, H.; E. STROCK; AND H. TEHRANIAN. "Impact on Equity Prices of Pronouncements Related to Non-Pension Post Retirement Benefits." *Journal of Accounting and Economics* 14 (1991): 323–46.
- FINANCIAL ACCOUNTING STANDARD BOARD. *Statement of Financial Accounting Standards No. 81: Disclosure of Post-Retirement Health Care and Life Insurance Benefits*. Stamford, Conn.: FASB, 1984.

- _____. *Statement of Financial Accounting Standards No. 87: Employers' Accounting for Pensions*. Stamford, Conn.: FASB, 1985.
- _____. *Statement of Financial Accounting Standards No. 106: Employers' Accounting for Post-Retirement Benefits Other Than Pensions*. Norwalk, Conn.: FASB, 1990.
- HEALY, P. "The Impact of Bonus Schemes on the Selection of Accounting Principles." *Journal of Accounting and Economics* 7 (1985): 85–107.
- IMHOFF, E. A., AND J. K. THOMAS. "Economic Consequences of Accounting Standards: The Lease Disclosure Rule Change." *Journal of Accounting and Economics* 10 (1988): 277–310.
- LANGER, R., AND B. LEV. "Examining the FASB's Extended Adoption Policy for New Standards: The FAS 87 (Pensions) Case." *The Accounting Review* 68 (July 1993): 513–33.
- SECURITIES AND EXCHANGE COMMISSION. *Staff Accounting Bulletin No. 74: Disclosure Regarding Accounting Standards Issued But Not Yet Adopted*. Washington, D.C.: SEC, 1987.
- VERRECCHIA, R. "Discretionary Disclosure." *Journal of Accounting and Economics* 5 (1983): 179–94.