

**AUDITORS' RISK MANAGEMENT AND REPUTATION BUILDING IN THE POST-
ENRON ENVIRONMENT: AN EXAMINATION OF EARNINGS CONSERVATISM OF
FORMER ANDERSEN CLIENTS**

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Abstract

In the post-Enron world, the spot light is on the auditors who face a higher risk of litigation. This study provides evidence on one strategy employed by auditors to mitigate litigation risk and rebuild their reputation by enhancing earnings conservatism of their clients. I examine the earnings conservatism for a sample of former Arthur Andersen clients who switched to a Big 4 auditor in 2002. I find that prior to the switch earnings of former Andersen clients are less sensitive to bad news about future cash flows than earnings of non-Andersen clients. In 2002, earnings conservatism has increased for both former Andersen clients and non-Andersen clients. Further, the increase in earnings conservatism is more pronounced for Houston-based former clients of Andersen. The results are consistent with the notion that brand name auditors attempt to mitigate litigation risk by prevailing on their clients to recognize bad news in a timely fashion.

Key Words: Asymmetric timeliness; Earnings-return relation; Capital markets.

JEL Classifications: M41, D82, G14

AUDITORS' RISK MANAGEMENT AND REPUTATION BUILDING IN THE POST-ENRON ENVIRONMENT: AN EXAMINATION OF EARNINGS CONSERVATISM OF FORMER ANDERSEN CLIENTS

1. Introduction

The recent spate of highly publicized corporate scandals and allegations of accounting impropriety have undermined investor confidence in financial reporting and credibility of auditors (*Wall Street Journal*, February 6, 2002). Recent research by Asthana et al. (2003) and Doogar et al. (2003) find that negative disclosures about Arthur Andersen is followed by a decline in share prices of not only Andersen clients but also of clients of other auditors. This finding supports the notion that investors' concern for auditor credibility extends beyond Arthur Andersen. The objective of this study is to provide evidence on how brand name auditors respond to this credibility crisis to mitigate litigation risk and restore their reputation. Specifically, I examine whether earnings conservatism has increased for a sample of former Arthur Andersen clients who switched to a Big 4 auditor in year 2002.

An audit firm's reputation capital represents its expertise and commitment to a high level of audit quality. It is also a source of the audit firm's competitive advantage. Preserving reputation capital has become more important in the post-Enron environment where auditors face a higher risk of litigation and costs of professional liability has soared by more than 100% for Big 4 auditors (Aldred 2002). One strategy that is likely to mitigate the litigation risk for the auditor is to prevail on clients to recognize bad news about future cash flows in a timely fashion, i.e. enhance earnings conservatism. I predict that following the switch to a Big 4 auditor, earnings conservatism should increase for former clients of Arthur Andersen.

I focus on earnings conservatism, also known as the property of asymmetric timeliness of earnings, i.e., the quicker recognition of bad news in earnings than good news (Basu 1997) because Ball et al. (2000) and Ball (2001) argue that timely incorporation of economic losses is a fundamental feature of financial reporting.¹ They emphasize that this feature of earnings facilitates effective monitoring of managers and contracts (Watts 2003).

My sample consists of 856 (3,582) former clients of Arthur Andersen who switched to a Big 4 auditor (non-Andersen clients of Big 4 auditors). There are several key findings. First, for the fiscal year 2001 (the last year as clients of Arthur Andersen) earnings of former Andersen clients differ from earnings of clients of other Big 4 auditors in two ways. Earnings of Andersen clients are more timely in reflecting good news and less timely in reflecting bad news. These results suggest that prior to the auditor switch earnings conservatism is lower for Andersen clients relative to clients of other Big 4 auditors.

Second, consistent with the prediction, earnings of former Andersen clients are more than 200% more sensitive to bad news in 2002 than earnings in 2001. Further, earnings are less sensitive to good news about future cash flows. This finding is consistent with the notion that Big 4 auditors prevailed on former Andersen clients to recognize bad news in a timely fashion to mitigate the risk of litigation. I also find that earnings conservatism has increased for non-Andersen clients as well. This response suggests that in the post-Enron world, earnings conservatism is used as a risk management strategy for all clients of Big 4 auditors. Further, I find that earnings of former Andersen clients have become more sensitive to bad news than earnings of non-Andersen clients of Big 4 auditors. In other words, it appears that the

¹ The asymmetric timeliness of earnings has been empirically documented internationally (Pope and Walker 1999, Ball et al. 2000, and Giner and Rees 2001) and over time in the U.S. (Givoly and Hayn 2000, Holthausen and Watts 2001, and Ryan and Zarowin 2003).

“conservatism gap” observed for the former clients of Andersen for 2001 has been significantly reduced following the switch to a brand-name auditor.

Third, earnings conservatism has increased by more than 550% for a sample of Houston-based former clients of Andersen in year 2002 relative to year 2001. However, earnings conservatism has not significantly changed during the same period for Houston-based non-Andersen clients of Big 4 auditors. These findings suggest that following the auditor change, earnings conservatism for former Andersen clients even exceeds that of their Houston-based peers.

Finally, earnings conservatism has not increased for those former Andersen clients who switched to a non-Big 4 auditor. This finding is not surprising because non-Big 4 auditors do not face the same incentives as Big 4 auditors to protect their reputation capital. The results are robust to several sensitivity and diagnostic checks, including alternative measures of stock returns and alternative empirical models.

A number of recent studies have examined the investor reaction to the Enron-Andersen affair (see Chaney and Philipich 2002; Asthana et al. 2003; and Doogar et al. 2003) or the timing of switching to a new auditor by clients of Andersen (Barton 2003). This study contributes to this growing literature by examining how Big 4 auditors respond to the increased risk of litigation in the post-Enron environment.²

The rest of the paper is organized as follows. The next section describes the hypothesis and the empirical models. Section three describes the sample selection process. Results are in section four followed by conclusions.

² This study differs from Willekens and Bauwhede (2003) who examine whether auditors practice conservative reporting following the Enron-Andersen affair.

2. Hypothesis and empirical models

The Enron-Andersen affair has renewed auditors' concern for litigation risk and the importance of preserving reputation capital, particularly for the Big 4 auditors. Even before the guilty verdict was issued against Arthur Andersen in June 2002, more than half of Andersen's clients switched to other auditors to preserve their own reputation (Barton 2003). An audit firm's reputation capital represents its expertise and commitment to a high level of audit quality. A high level of reputation is a competitive advantage – the auditor can attract talented employees, recruit clients away from other auditors, and even charge a premium for services. Conversely, as Arthur Andersen has learned the hard way, impairments to reputation often associated with litigation, can be very costly for the audit firm.

In addition to loss of potential future revenue caused by defecting clients, investor concern over the quality of financial reporting and auditor credibility has increased another cost for auditors – cost of professional liability insurance. Bray (2002) reports that premium for professional liability insurance has soared in wake of Enron-Andersen affair and large firms may face rate increases of more than 100%. Further, even auditors with a good loss record could see a 20% to 25% reduction in limits and a significant increase in premium. Thus, Big 4 auditors must struggle to get adequate coverage and are effectively, self-insured (Aldred 2002).

Thus, the combination of greater scrutiny by regulators and investors and lower liability coverage underscores the need to manage litigation risk, particularly for the Big 4 auditors. One strategy that is likely to mitigate the business risk is to prevail on clients to recognize bad news about future cash flows in a timely fashion, i.e. enhance earnings conservatism.³ This strategy

³ St. Pierre and Anderson (1984) note that while auditors are frequently sued for allowing income overstatements, there are no evidence auditors are sued for earnings understatements.

could be viewed as the first line of defense to ward off potential litigation. Other strategies such as, seeking an increase in audit fees to compensate for the growing risk of litigation or issuing modified opinions or even resigning from risky engagements may be more costly or not viable.

In wake of Enron-Andersen affair, the risk of potential litigation is likely to be high for former clients of Arthur Andersen. These clients are perceived to be inherently risky relative to clients of other auditors. Thus, the current auditors, particularly the Big 4, are expected to impose a higher level of earnings conservatism to mitigate potential litigation risk. This line of reasoning leads to the following hypothesis (in alternate form):

Hypothesis: The asymmetric timeliness of earnings is higher for former clients of Arthur Andersen following the switch to a Big 4 auditor.

Following Basu (1997), I estimate model (1) for year 2001 (the last fiscal year as a client of Arthur Andersen) and year 2002 (the first fiscal year under a new auditor) and compare the coefficients for the interaction variable, $R \times DR$, between the two years:

$$X_{it} / P_{it-1} = \alpha_0 + \alpha_1 DR_{it} + \beta_0 R_{it} + \beta_1 R_{it} \times DR_{it} \quad (1)$$

where X_{it} is net income per share for firm i in fiscal year t , P_{it-1} is price per share at the beginning of the fiscal year. R_{it} is the fiscal year buy-and-hold return. DR_{it} is a dummy variable that equals 1 if $R_{it} < 0$ and 0 otherwise. I also use other measures of returns, including market-adjusted returns and those results are discussed in a later section. In model (1), β_1 (the incremental bad news coefficient) is expected to be greater than β_0 (the good news coefficient), i.e., earnings are more sensitive to bad news than good news. Thus, an increase in β_1 following the auditor switch would be consistent with an increase in earnings conservatism.

A second model pools client-observations from both years, and adds an additional dummy variable $SWITCH$ that equals 1 for year 2002 and 0 for year 2001. I interact $SWITCH$ with R_{it} ,

DR_{it} , and $R_{it} \times DR_{it}$. This directly examines whether the contemporaneous association between earnings and negative returns is statistically different in year 2002 compared to year 2001:

$$X_{it} / P_{it-1} = \alpha_0 + \alpha_1 DR_{it} + \alpha_2 SWITCH_{it} + \alpha_3 DR_{it} \times SWITCH_{it} + \beta_0 R_{it} + \beta_1 R_{it} \times DR_{it} + \beta_2 R_{it} \times SWITCH_{it} + \beta_3 R_{it} \times DR_{it} \times SWITCH_{it} \quad (2)$$

The variable of interest in model (2) is $R \times DR \times SWITCH$. Thus, observing $\beta_3 > 0$ is consistent with greater asymmetric timeliness of earnings associated with former clients of Arthur Andersen following the switch to a Big 4 auditor.

I also estimate models (1) and (2) for the following groups of clients: (a) *non*-Andersen clients of Big 4 auditors, (b) Houston-based former clients of Arthur Andersen, (c) Houston-based *non*-Andersen clients of Big 4 auditors, and (d) former clients of Arthur Andersen who switched to a *non*-Big 4 auditor. *Non*-Andersen clients of Big 4 auditors are of interest because of the spill over effect, i.e., concern for auditor credibility extends beyond Andersen (Doogar et al. 2003). Thus, earnings conservatism is likely to increase even for *non*-Andersen clients to mitigate the increase in litigation risk in the post-Enron environment.

Houston-based former clients of Andersen are of special interest because of the Enron-Andersen affair. These clients are perceived to be more risky than other clients of Andersen and therefore, will be subject to an intense scrutiny by their new auditors. Thus, earnings conservatism of these clients is expected to be even greater in year 2002 relative to earnings conservatism of *non*-Houston-based former Andersen clients.

Finally, former clients of Andersen who switched to a *non*-Big 4 auditor are also of interest because *non*-Big 4 auditors do not face the same incentives as Big 4 auditors to protect their

reputation capital. Thus, earnings conservatism for year 2002 is expected to be greater for those clients who switched to a Big 4 auditor compared to those switched to a non-Big 4 auditor.

3. Data

I searched the 2003 version of *COMPUSTAT PC PLUS* to identify clients of Arthur Andersen who switched to Big 4 auditors during 2002. To examine the change in earnings conservatism following the switch to a Big 4 auditor, I hold the client firms constant, i.e. earnings conservatism is compared between 2001 (before the switch) and 2002 (the first year after the switch) for an identical sample of former Andersen clients. Similarly, I identify a sample of non-Andersen clients for the same time period.

Earnings (both net income and income before extraordinary items and discontinued operations) are measured on a per share basis and deflated by beginning stock price (Christie 1987). Annual returns are buy-and-hold stock returns for the fiscal year obtained from *Compustat*. Operating cash flows are obtained from Statement of Cash Flow data available on *Compustat*. Finally, following Basu (1997), for each calendar year, I exclude observations falling in the top or bottom 1% of price-deflated earnings or stock returns to minimize the effects of extreme observations on regression results. The final sample consists of 856 former clients of Arthur Andersen and 3,582 non-Andersen clients.

[Insert Table 1 About Here]

Descriptive statistics for years 2001 and 2002 for sample firms are presented in Table 1. While panel A reports the results for former clients of Arthur Andersen, panel B presents the results for non-Andersen clients of Big 4 auditors. While the percentages of observations with negative returns are comparable for both years between panels A and B, the percentage of loss observations for former clients of Arthur Andersen is lower, particularly for year 2001. Further,

mean and median earnings are higher for former Andersen clients for year 2001 relative to non-Andersen clients for the same year. In other words, prior to the switch, earnings are less negatively skewed for clients of Andersen. The differences between mean and median for year 2001 are -0.009 and -0.110, respectively, for Andersen and non-Andersen clients. A number of studies have used earnings skewness to examine earnings conservatism and it is well-known that conservative accounting leads to negatively skewed earnings which contrasts with the positive skew of stock returns (Basu 1995, Ball et al. 2000, Givoly and Han 2000, and Lang et al. 2003). Note that after the switch to a Big 4 auditor, earnings are more negatively skewed for former Andersen clients (-0.15).⁴ This finding is consistent with the hypothesis that the asymmetric timeliness of earnings, i.e., quicker recognition of bad news in earnings than good news, has increased for former Andersen clients following the switch to a Big 4 auditor.

[Insert Table 2 About Here]

4. Results

Andersen vs. other Big 4: year 2001

I first examine whether earnings conservatism is lower for clients of Andersen relative to clients of other Big 4 auditors for 2001. The results are in Table 2 (White (1980) adjusted *t*-statistics are reported within parentheses). Panel A (B) reports the results of model (1) for Andersen clients (clients of other Big 4 auditors). Panel C presents the results of model (2) by pooling both groups of clients. Recall that model (1) is a regression of earnings on returns with a dummy variable that equals 1 for negative returns and 0 for positive returns, and model (2) includes an additional dummy variable *ANDER* that equals 1 for former clients of Arthur Andersen and 0 for clients of Big 4 firms.

⁴ I also use an alternate measure of earnings skewness following Givoly and Han (2000) and the skewness coefficient for Andersen clients for years 2001 and 2002 are respectively, -4.95 and -5.34. For non-Andersen clients the corresponding coefficients are -5.28 and -5.61. Once again, the results suggest that earnings are less negatively skewed for Andersen clients for year 2001.

Earnings conservatism is lower for clients of Andersen relative to clients of other Big 4 auditors in two ways. First, the incremental bad news coefficient, β_1 is lower in panel A. This indicates that earnings of Andersen clients are less sensitive to bad news than earnings of clients of Big 4 auditors. Second, earnings of Andersen clients are sensitive to good news (significant at the 0.01 level for a two-tailed test) but the good news coefficient, β_0 is negative for non-Andersen clients (significant at the 0.05 level). In other words, earnings of Andersen clients are more timely in reflecting good news and less timely in reflecting bad news relative to earnings of non-Andersen clients. Results in panel C confirm that the difference in mean slope coefficients for both bad news (β_3) and good news (β_2) between Andersen clients and non-Andersen clients are statistically significant at the 0.05 level. More important, the slope coefficient for bad news is lower for clients of Andersen. Overall, these results suggest that earnings conservatism for year 2001 is lower for Andersen clients relative to clients of other Big 4 auditors.

[Insert Table 3 About Here]

Former Andersen clients: years 2001 vs. 2002

Next, I examine whether earnings conservatism has increased for former Andersen clients following the switch to a Big 4 auditor in 2002. The results are in Table 3. Panel A of Table 2 is repeated in Table 3 to facilitate comparison with the results for year 2002 (panel B). Panel C presents the results of model (2) that pools client observations from both years. In model (2) *SWITCH* equals 1 for year 2002 and 0 for year 2001. In year 2002, the good news coefficient has become negative and the bad news coefficient has increased significantly. Earnings of former Andersen clients are more than 200% more sensitive to bad news in 2002 than earnings in 2001 $[(0.680 - 0.059) / (0.203 + 0.074)]$. This indicates that following the switch a Big 4 auditor, earnings of former Andersen clients have become less sensitive to good news and more sensitive

to bad news about future cash flows, i.e. earnings have become more conservative. Results in panel C indicates that the incremental asymmetrical timeliness of earnings, captured by β_3 is positive and statistically significant at the 0.01 level. Overall, results in Table 3 are consistent with the hypothesis.

[Insert Table 4 About Here]

Clients of Big 4 auditors: years 2001 vs. 2002

As discussed elsewhere, in wake of Andersen-Enron affair, earnings conservatism is expected to increase even for non-Andersen clients due to increased concern over litigation risk. Results of models (1) and (2) for non-Andersen clients are in Table 4. As expected, the incremental bad news coefficient (β_1) is higher for 2002 relative to 2001. Further, the good news coefficient (β_0) continues to be negative, indicating that earnings are not timely in reflecting good news. Results from panel C indicate that the increase in asymmetric timeliness from 2001 to 2002 (β_3) is positive and significant, confirming that earnings have become more conservative in 2002 relative to 2001.⁵

I also pool client observations across auditors and years [(856+3,582) X 2 = 8,876] and estimate a variation of model (2) that includes an additional dummy variable *ANDER* that equals 1 for former Andersen clients and 0 for clients of other Big 4 auditors. I examine whether the increase in asymmetric timeliness of earnings during 2002 is greater for former Andersen clients relative to clients of other Big 4 auditors. The coefficient for the variable $DR \times R \times ANDER \times SWITCH$ (results not tabulated) is 0.287 (significant at the 0.10 level). This suggests that

⁵ These findings are also consistent with Willekens and Leuven (2003) who examine the proportion of modified opinions issued during 2002, the first fiscal year after the Enron-Andersen affair and find that the rate of modified opinions has significantly increased for Big 4 auditors but not for non-brand name auditors. Their findings are consistent with the notion that brand name auditors mitigate increased litigation risk in the post-Enron world by practicing reporting conservatism.

following the switch to a Big 4 auditor, earnings of former Andersen clients have become more sensitive to bad news about future cash flows than earnings of clients of other Big 4 auditors. Thus, it appears that the “conservatism gap” observed for the former clients of Andersen for 2001 has been closed after the switch to a Big 4 auditor.

[Insert Table 5 About Here]

Houston-based clients: years 2001 vs. 2002

Of all former clients of Andersen, Houston-based clients are of interest because of the Enron scandal.⁶ Enron Corp. was the largest among the clients served by the Houston office. It appears that the Houston office disregarded or even misrepresented quality control standards set by the headquarters office (Schmidt 2002). Chaney and Philipich (2002) study the reaction of the stock market to Andersen’s admission of shredding of documents and find that the reaction was more negative for those clients served by the Houston office relative to clients served by other offices. In a recent study, Krishnan (2003) documents that earnings of Andersen’s Houston-based clients are less timely in reporting bad news about future cash flows relative to a number of control groups, including Houston-based clients audited by other Big 6 auditors. Findings from Chaney and Philipich (2002) and Krishnan (2003) lead to the expectation that Houston-based former clients of Arthur Andersen are likely to face intense scrutiny by their new auditors who might impose a high standard of earnings conservatism. I examine whether earnings conservatism has increased for these Houston-based clients served by Andersen. The results are in Table 5. There are several key findings here. First, in year 2001 (panel A), the good news coefficient is positive and significant at the 0.05 level. In fact the magnitude of the good news coefficient for the Houston-based clients is more than twice the coefficient for all clients of Andersen clients (see

⁶ Waste Management was also served by the Houston office. In 2001, Waste Management admitted that it had overstated its past earnings by \$1.43 billion (Schroeder 2001).

panel A of Table 2). This suggests that earnings of Houston-based clients are more sensitive to good news than earnings of clients served by other offices of Andersen. Second, the incremental bad news coefficient is negative for year 2001, indicating that earnings of Houston-based clients are not sensitive to bad news. This finding is also consistent with findings in Krishnan (2003).

Third, following the switch to a Big 4 auditor in year 2002 (see panel B), earnings are not sensitive to good news and the bad news coefficient has increased dramatically from -0.016 to 0.966 and is significant at the 0.10 level, and this increase is statistically significant (see panel C).⁷ In other words, earnings conservatism has increased by more than 550%. Further, the magnitude of the bad news coefficient exceeds coefficients for all Andersen clients (see panel B of Table 3) and non-Andersen clients (see panel B of Table 4). Finally, the adjusted R^2 has also increased considerably from 1.04% in 2001 to 16.13% in 2002. Overall, these findings suggest that earnings conservatism for Houston-based former clients of Arthur Andersen, the group of clients with the highest perceived risk of litigation has increased significantly following the switch to a Big 4 auditor. The findings are consistent with the notion that Big 4 auditors attempt to mitigate litigation risk by prevailing on former Andersen clients to report bad news in a timely fashion.

[Insert Table 6 About Here]

For comparison sake, I also examine the earnings conservatism for a sample of Houston-based non-Andersen clients for the years 2001 and 2002 and those results are in Table 6. The adjusted R^2 has increased from 19.41% in 2001 to 31.46% in year 2002. However, the incremental bad news coefficient has slightly decreased from 0.567 in 2001 to 0.524 in 2002 but significant at the 0.01 level. Note that the magnitude of β_1 in year 2002 is less than the

⁷ Similarly, earnings are negatively skewed only for year 2002 for Houston-based former clients of Andersen. Mean less median values of earnings are, 0.006 and -0.126 respectively, for 2001 and 2002.

corresponding coefficient for Andersen clients. This suggests that following the switch, earnings conservatism for former Andersen clients even exceeds that of their Houston-based peers.

Additional tests for robustness of findings

I perform additional tests to examine the sensitivity of the results to alternative variable definitions and omitted variables. First, to address the issue that the increase in earnings conservatism observed for former Andersen clients could be due to factors other than concern over auditor reputation, I examine whether economic fundamentals have changed between 2001 and 2002. Specifically, I conduct univariate analysis of test of differences in mean and median values between 2001 and 2002 for the following variables: firm size, leverage, and sales growth. Size, leverage, and growth are commonly used controls in empirical research. Size is defined as market value of equity at the end of the fiscal year. Leverage is long-term debt over book value of total assets. Sales growth is calculated over a two-year period. Untabulated results indicate that both mean and median differences are not significant at the 0.10 level for former clients of Arthur Andersen. I also conduct a similar analysis for non-Andersen clients audited by Big 4 auditors. For this group, the median difference in sales growth is significant at the 0.10 level. For the rest of the variables, both mean and median differences are not significant at the 0.10 level. These results provide some assurance that the observed increase in earnings conservatism is not driven by size, leverage, and growth.

To address the concern that greater earnings sensitivity to bad news observed for former Andersen clients could be driven by one-time special items such as, asset write-off and restructuring charges, I exclude observations with special items and estimate model (2) separately for former Andersen clients and non-Andersen clients. Total number of pooled client observations available for this estimation is 793. The values of β_1 and β_3 are, respectively, 0.192

(significant at the 0.05 level) and 0.411 (significant at the 0.10 level). The adjusted R^2 is 10.97%. For non-Andersen clients, the values of β_1 and β_3 are, respectively, 0.347 (significant at the 0.05 level) and 0.143 (*not* significant at the 0.10 level), and the adjusted R^2 is 6.61%. These findings suggest that increase in earnings conservatism following the switch to Big 4 auditors is not merely driven by one-time special charges.

To control for time-series non-stationarity in the earnings and the return process, I redo the analysis using market-adjusted returns. The value of the incremental bad news coefficient for former Andersen clients for years 2001 and 2002 are, respectively, 0.255 and 0.790 (both are significant at the 0.05 level). The increase in earnings conservatism from 2001 and 2002 is also statistically significant at the 0.05 level. The coefficients for non-Andersen clients are, respectively, 0.316 and 0.559 (both are significant at the 0.01 level) and the increase in asymmetric timeliness is significant at the 0.05 level. Overall, these results are consistent with results in Tables 3 and 4 and mitigate concerns that the findings are sensitive to alternative measures of stock returns.

Next, I examine earnings conservatism for a sample of former Andersen clients who switched to non-brand name auditors. Prior research finds that Big 6 auditors constrain accruals-based earnings management more than non-Big Six auditors (Becker et al. 1998 and Francis et al. 1999). Similarly, Basu et al. (2000) find that the asymmetric timeliness of earnings is greater for clients of Big Eight auditors than for clients of non-Big Eight auditors. These findings are consistent with the notion that brand name auditors have more incentives than non-brand name auditors to protect their reputation capital and therefore, prevail on their clients to recognize bad news in a timely fashion. I identify a sample of 91 former clients of Andersen who switched to a

non-brand name auditor. The untabulated results show that β_1 , the incremental bad news coefficient is positive and significant at the 0.05 level in both years. However, the coefficient has slightly decreased in year 2002 though this decrease is not statistically significant. In other words, earnings conservatism has significantly increased in 2002 only for those clients who switched to a brand-name auditor. This finding is consistent with prior research.

Gigler and Hemmer (2001) argue that firms operating under less conservative financial reporting regimes are more likely to engage in timely preemptive disclosure than firms in more conservative regimes. Thus, “returns lead earnings” for firms in less conservative regimes as a result of their voluntary disclosures. Gigler and Hemmer state that researchers using Basu’s (1997) reverse regression methodology should control for the voluntary disclosures. Gigler and Hemmer recommend using a return window that excludes the market reaction to both the prior year’s earnings release as well as the current year’s earnings release. To incorporate this approach, I redo the analysis using a shortened fiscal year return calculated over a nine-month period ending at fiscal year-end. For former Andersen clients, the coefficient for the variable of interest, $R \times DR \times SWITCH$ is 0.378 and significant at the 0.05 level, indicating that earnings of former Andersen clients have become more sensitive to bad news following the switch to a Big 4 auditor. The adjusted R^2 is 9.95%, consistent with results presented in Table 3.

Finally, I distinguish between client-induced vs. auditor-induced conservatism. Managers in industries where the operating environment is volatile and the risk of litigation is high have incentives to recognize economic losses in a timely fashion.⁸ To focus on auditor-induced conservatism, I estimate model (2) after excluding former Arthur Andersen client-observations

⁸ Skinner (1994) argues that costs of litigation create incentives for managers to disclose bad news voluntarily to minimize costs of litigation.

from those industries where the risk of litigation is high. I code the following industries as industries subject to high-litigation risk: biotechnology (SIC codes 2833-2836 and 8731-8734), computers (SIC codes 3570-3577 and 7370-7374), electronics (SIC codes 3600-3674), and retailing (SIC codes 5200-5961) (see Francis et al.1994). The remaining industries are classified as low-litigation risk industries. Seventy percent of the total number of client-observations was classified as belonging to the low-litigation risk group. Untabulated results indicate that $R \times DR \times SWITCH$ is 0.642 and significant at the 0.01 level, indicating that earnings of former Andersen clients in low-litigation risk industries have become more conservative following the switch to a Big 4 auditor.

Persistence of negative and positive earnings changes for former Andersen clients

I use persistence of negative and positive earnings changes as an alternate way to examine earnings conservatism. In a regression of earnings changes on prior-period earnings changes, Basu (1997) finds that positive earnings changes tend to persist, while negative earnings changes tend to reverse. Further, Basu et al. (2000) find that the rate of reversal for negative earnings changes is greater for clients of Big 8 auditors than clients of non-Big 8 auditors, indicating that earnings conservatism is greater for clients audited by Big 8 auditors. I examine whether the rate of reversal for negative earnings is greater for former Andersen clients after the switch to a Big 4 auditor. I estimate the following model:

$$\Delta X_{it} / P_{it-1} = \alpha_0 + \alpha_1 D_{it} + \beta_0 \Delta X_{it-1} / P_{it-2} + \beta_1 D_{it} \times \Delta X_{it-1} / P_{it-2} \quad (3)$$

where X_{it} is net income per share for firm i in fiscal year t , ΔX_{it} is the change in earnings for firm i for fiscal year t over fiscal year $t-1$. P_{it-1} is price per share at the close of the fiscal year $t-1$. D is a dummy variable that equals 1 if $\Delta X_{it-1}/P_{it-2} < 0$ and 0 otherwise. While both β_0 and β_1 are expected to be negative, Basu (1997, Table 3) finds that β_0 is not significant (because good news

in earnings tend to be permanent) while β_1 is greater in magnitude and significant. This is consistent with the tendency of bad news earnings changes to reverse compared to good news earnings changes.

[Insert Table 7 About Here]

Number of former Andersen client-observations available to estimate model (3) for years 2001 and 2002 are, respectively, 794 and 794. Panel A (B) of Table 7 presents the results for year 2001 (2002). Panel C has the results for both years combined. Consistent with the expectation, β_1 is negative and significant at the 0.05 level in year 2001 while β_0 is not significant. In other words, unlike good news, bad news in earnings tends to be less permanent. Further note that the value of β_1 has increased significantly in year 2002, suggesting that the rate of reversal for negative earnings changes is greater following the switch to a Big 4 auditor. Results in panel C confirm that this increase is indeed significant at the 0.05 level. The findings in Table 7 are consistent with the hypothesis that earnings of former clients of Arthur Andersen have become more conservative in year 2002 relative to 2001.

Operating accruals and asymmetric timeliness of earnings of former Andersen clients

I conduct another alternative test to evaluate earnings conservatism of former Andersen clients. Prior research finds that the asymmetric timeliness of earnings is reflected in accruals but not in cash flows (Basu 1997). Recall that accruals account for the difference between earnings and cash flow. Therefore, earnings which include accruals should be more sensitive to bad news than cash flow. Thus, a comparison of the asymmetric timeliness between cash flow and earnings can shed light on whether accruals accelerate the timely recognition of bad news about future cash flows.

I replace net income, the dependent variable in model (2), with income before extraordinary items and discontinued operations and cash flow from operations and re-estimate model (2) and the results are in Table 8.

[Insert Table 8 About Here]

Panel A (B) reports the results when the dependent variable is cash flow from operations (income before extraordinary items and discontinued operations). In panel A, the incremental bad news coefficient, β_1 is positive but not significant at the 0.10 level. Further, the coefficient of interest, β_3 is negative and insignificant, indicating that the sensitivity of cash flows to bad news has decreased following the switch to a Big 4 auditor, though the decrease is not statistically significant. In short, cash flows of former Andersen clients are not sensitive to bad news even after the switch.

However, when the dependent variable is income before extraordinary items and discontinued operations, the coefficient for β_1 is positive and significant at the 0.01 level and higher than corresponding value in panel A. This finding is consistent with the expectation that accruals enhance the sensitivity of earnings to bad news. More important, coefficient β_3 is positive and significant at the 0.05 level. In other words, while there is no difference between 2001 and 2002 in the asymmetric timeliness of operating cash flow, there is a significant increase in the asymmetric timeliness of earnings. Since accruals are reflected only in earnings and not in cash flows, the implication is that accruals of former Andersen clients have become more sensitive to bad news following the switch to a Big 4 auditor. The findings also mitigate the concern that results reported in Table 3 are driven by extraordinary items and discontinued operations. Overall, findings reported in Tables 7 and 8 corroborate findings reported in Table 3

that the earnings of former clients of Arthur Andersen have become more sensitive to bad news about future cash flows in year 2002 relative to year 2001.

5. Summary and conclusion

The Enron-Andersen affair provides an unprecedented opportunity to study how auditors respond to events that significantly increase their business risk, particularly the risk of litigation. I examine the property of asymmetric timeliness of earnings, i.e., the quicker recognition of bad news in earnings than good news for a sample of firms who are perceived to be risky – former clients of Arthur Andersen. The findings suggest that earnings of former Andersen clients, particularly those based in Houston have become more sensitive to bad news following the switch to a Big 4 auditor. Earnings of non-Andersen clients also exhibit increased sensitivity to bad news. Overall, the results are consistent with the notion that auditors perceive an increase in the risk of litigation in the post-Enron world and enhance earnings conservatism to mitigate the risk. The findings contribute to our understanding of strategies employed by brand-name auditors to mitigate litigation risk and protect their reputation capital. Whether these steps actually lower the incidence of litigation would be a worthwhile follow-up study.

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TABLE 1
Descriptive Statistics

Panel A: Former Clients of Arthur Andersen

Variable	Year 2001	Year 2002
% of loss firms	41.59%	43.46%
% of firms with negative returns	50.12%	66.71%
Earnings		
Mean	-0.070	-0.133
Median	0.020	0.015
Annual returns		
Mean	0.095	-0.155
Median	-0.002	-0.163
Firm size		
Mean	\$2,093.280	\$1,686.770
Median	231.826	168.052

Panel B: Clients of Other Big 4 Auditors

Variable	Year 2001	Year 2002
% of loss firms	44.86%	45.28%
% of firms with negative returns	49.80%	67.09%
Earnings		
Mean	-0.096	-0.112
Median	0.012	0.013
Annual returns		
Mean	0.098	-0.154
Median	0.000	-0.183
Firm size		
Mean	\$3,766.550	\$2,978.399
Median	311.824	220.071

Total number of clients for Arthur Andersen and other Big 4 auditors are, respectively, 856 and 3,582 for both years. Client observations falling in the top or bottom 1% of price-deflated earnings or returns in each year are excluded. Earnings is net income per share, deflated by price per share at the beginning of the fiscal year. Annual returns are buy-and-hold returns for the fiscal year obtained from *Compustat*. Firm size is the market value of outstanding shares at fiscal year-end (in millions).

TABLE 2
Coefficients and Adjusted R²s from Cross-Sectional Regressions of Earnings on Returns and Industry Dummies for Year 2001

$$X_{it} / P_{it-1} = \alpha_0 + \alpha_1 DR_{it} + \beta_0 R_{it} + \beta_1 R_{it} \times DR_{it} \quad (1)$$

Panel A: Former Clients of Arthur Andersen

α_0	α_1	β_0	β_1	Adj. R ²
-0.038 (-1.50)	0.029 (0.94)	0.074 (3.64) ^a	0.203 (3.33) ^a	9.85%

Panel B: Clients of other Big 4 Auditors

α_0	α_1	β_0	β_1	Adj. R ²
0.012 (1.14)	-0.041 (-2.30) ^b	-0.053 (-2.36) ^b	0.348 (7.56) ^a	6.44%

$$X_{it} / P_{it-1} = \alpha_0 + \alpha_1 DR_{it} + \alpha_2 ANDER + \alpha_3 DR_{it} \times ANDER_{it} + \beta_0 R_{it} + \beta_1 R_{it} \times DR_{it} + \beta_2 R_{it} \times ANDER_{it} + \beta_3 R_{it} \times DR_{it} \times ANDER_{it} \quad (2)$$

Panel C: All Clients

α_0	α_1	α_2	α_3	β_0	β_1	β_2	β_3	Adj. R ²
0.012 (1.18)	-0.040 (-2.27) ^b	-0.050 (-2.06) ^b	0.064 (1.79) ^c	-0.053 (-2.35) ^b	0.349 (7.67) ^a	0.124 (4.08) ^a	-0.149 (-2.04) ^b	6.95%

Total number of client observations in panels A, B, and C are, respectively, 856, 3,582, and 4,438.

Observations falling in the top or bottom 1% of price-deflated earnings or returns in each year are excluded. X_{it} is net income per share for firm i in fiscal year t , P_{it-1} is price per share at the beginning of the fiscal year. Annual returns are buy-and-hold fiscal year returns calculated from *Compustat*. DR_{it} is a dummy variable that equals 1 if $R_{it} < 0$ and 0 otherwise. $ANDER$ equals 1 for clients of Arthur Andersen and 0 for clients of other Big 4 auditors. White (1980) heteroskedasticity-consistent t -statistics are in parentheses.

Models (1) and (2) also include six industry-dummy variables D_1 representing the following groupings of two-digit SIC codes: 13, 28, 35, 36, 38, and 73.

a, b, and c indicate significance at the 0.01, 0.05, and 0.10 level for a two-tailed test.

TABLE 3
Coefficients and Adjusted R²s from Cross-Sectional Regressions of Earnings on Returns and Industry Dummies for Former Clients of Arthur Andersen for Years 2001 and 2002

$$X_{it} / P_{it-1} = \alpha_0 + \alpha_1 DR_{it} + \beta_0 R_{it} + \beta_1 R_{it} \times DR_{it} \quad (1)$$

Panel A: 2001

α_0	α_1	β_0	β_1	Adj. R ²
-0.038 (-1.50)	0.029 (0.94)	0.074 (3.64) ^a	0.203 (3.33) ^a	9.85%

Panel B: 2002

α_0	α_1	β_0	β_1	Adj. R ²
0.001 (0.04)	0.044 (1.10)	-0.059 (0.88)	0.680 (5.04) ^a	10.06%

$$X_{it} / P_{it-1} = \alpha_0 + \alpha_1 DR_{it} + \alpha_2 SWITCH + \alpha_3 DR_{it} \times SWITCH_{it} + \beta_0 R_{it} + \beta_1 R_{it} \times DR_{it} + \beta_2 R_{it} \times SWITCH_{it} + \beta_3 R_{it} \times DR_{it} \times SWITCH_{it} \quad (2)$$

Panel C: Both Years

α_0	α_1	α_2	α_3	β_0	β_1	β_2	β_3	Adj. R ²
-0.046 (-1.91) ^c	0.030 (0.96)	0.052 (1.65) ^c	0.017 (0.34)	0.071 (3.37) ^a	0.225 (3.72) ^a	-0.125 (-1.80) ^c	0.430 (3.19) ^a	10.43%

Total number of client observations in panels A, B, and C are, respectively, 856, 856, and 1,712.

Observations falling in the top or bottom 1% of price-deflated earnings or returns in each year are excluded. X_{it} is net income per share for firm i in fiscal year t , P_{it-1} is price per share at the beginning of the fiscal year. Annual returns are buy-and-hold fiscal year returns calculated from *Compustat*. DR_{it} is a dummy variable that equals 1 if $R_{it} < 0$ and 0 otherwise. $SWITCH$ equals 1 for year 2002 and 0 for year 2001. White (1980) heteroskedasticity-consistent t -statistics are in parentheses.

Models (1) and (2) also include six industry-dummy variables D_i representing the following groupings of two-digit SIC codes: 13, 28, 35, 36, 38, and 73.

a, b, and c indicate significance at the 0.01, 0.05, and 0.10 level for a two-tailed test.

TABLE 4
Coefficients and Adjusted R²s from Cross-Sectional Regressions of Earnings on Returns and Industry Dummies for Clients of Other Big 4 Auditors for Years 2001 and 2002

$$X_{it} / P_{it-1} = \alpha_0 + \alpha_1 DR_{it} + \beta_0 R_{it} + \beta_1 R_{it} \times DR_{it} \quad (1)$$

Panel A: 2001

α_0	α_1	β_0	β_1	Adj. R ²
0.012 (1.14)	-0.041 (-2.30) ^b	-0.053 (-2.36) ^b	0.348 (7.56) ^a	6.44%

Panel B: 2002

α_0	α_1	β_0	β_1	Adj. R ²
0.004 (0.32)	0.031 (1.62)	-0.059 (1.74) ^c	0.564 (9.42) ^a	8.46%

$$X_{it} / P_{it-1} = \alpha_0 + \alpha_1 DR_{it} + \alpha_2 SWITCH + \alpha_3 DR_{it} \times SWITCH_{it} + \beta_0 R_{it} + \beta_1 R_{it} \times DR_{it} + \beta_2 R_{it} \times SWITCH_{it} + \beta_3 R_{it} \times DR_{it} \times SWITCH_{it} \quad (2)$$

Panel C: Both Years

α_0	α_1	α_2	α_3	β_0	β_1	β_2	β_3	Adj. R ²
0.002 (0.18)	-0.038 (-2.16) ^b	0.009 (0.56)	0.071 (2.71) ^a	-0.055 (-2.44) ^b	0.372 (8.32) ^a	0.000 (0.00)	0.168 (2.38) ^b	7.41%

Total number of client observations in panels A, B, and C are, respectively, 3,582, 3,582, and 7,164.

Observations falling in the top or bottom 1% of price-deflated earnings or returns in each year are excluded. X_{it} is net income per share for firm i in fiscal year t , P_{it-1} is price per share at the beginning of the fiscal year. Annual returns are buy-and-hold fiscal year returns calculated from *Compustat*. DR_{it} is a dummy variable that equals 1 if $R_{it} < 0$ and 0 otherwise. $SWITCH$ equals 1 for year 2002 and 0 for year 2001. White (1980) heteroskedasticity-consistent t -statistics are in parentheses.

Models (1) and (2) also include six industry-dummy variables D_i representing the following groupings of two-digit SIC codes: 13, 28, 35, 36, 38, and 73.

a, b, and c indicate significance at the 0.01, 0.05, and 0.10 level for a two-tailed test.

TABLE 5
Coefficients and Adjusted R²s from Cross-Sectional Regressions of Earnings on Returns and an Industry Dummy for Houston-Based Former Clients of Arthur Andersen for Years 2001 and 2002

$$X_{it} / P_{it-1} = \alpha_0 + \alpha_1 DR_{it} + \beta_0 R_{it} + \beta_1 R_{it} \times DR_{it} \quad (1)$$

Panel A: 2001

α_0	α_1	β_0	β_1	Adj. R ²
-0.048 (-0.37)	0.135 (1.07)	0.162 (2.08) ^b	-0.016 (-0.10)	1.04%

Panel B: 2002

α_0	α_1	β_0	β_1	Adj. R ²
0.015 (0.24)	0.009 (0.05)	-0.154 (-0.54)	0.966 (1.73) ^c	16.13%

$$X_{it} / P_{it-1} = \alpha_0 + \alpha_1 DR_{it} + \alpha_2 SWITCH + \alpha_3 DR_{it} \times SWITCH_{it} + \beta_0 R_{it} + \beta_1 R_{it} \times DR_{it} + \beta_2 R_{it} \times SWITCH_{it} + \beta_3 R_{it} \times DR_{it} \times SWITCH_{it} \quad (2)$$

Panel C: Both Years

α_0	α_1	α_2	α_3	β_0	β_1	β_2	β_3	Adj. R ²
-0.062 (-0.50)	0.102 (0.75)	0.098 (0.77)	-0.097 (-0.46)	0.168 (2.20) ^b	-0.053 (-0.29)	-0.308 (-1.15)	1.004 (1.73) ^c	16.14%

Total number of client observations in panels A, B, and C are, respectively, 44, 44, and 88.

Observations falling in the top or bottom 1% of price-deflated earnings or returns in each year are excluded. X_{it} is net income per share for firm i in fiscal year t , P_{it-1} is price per share at the beginning of the fiscal year. Annual returns are buy-and-hold fiscal year returns calculated from *Compustat*. DR_{it} is a dummy variable that equals 1 if $R_{it} < 0$ and 0 otherwise. $SWITCH$ equals 1 for year 2002 and 0 for year 2001. White (1980) heteroskedasticity-consistent t -statistics are in parentheses.

Models (1) and (2) also include a dummy variable for the oil and gas industry.

a, b, and c indicate significance at the 0.01, 0.05, and 0.10 level for a two-tailed test.

TABLE 6
Coefficients and Adjusted R²s from Cross-Sectional Regressions of Earnings on Returns and Industry Dummies for Houston-Based Clients of Other Big 4 Auditors for Years 2001 and 2002

$$X_{it} / P_{it-1} = \alpha_0 + \alpha_1 DR_{it} + \beta_0 R_{it} + \beta_1 R_{it} \times DR_{it} \quad (1)$$

Panel A: 2001

α_0	α_1	β_0	β_1	Adj. R ²
0.145 (2.56) ^b	-0.110 (-1.28)	-0.430 (-2.04) ^b	0.567 (1.82) ^c	19.41%

Panel B: 2002

α_0	α_1	β_0	β_1	Adj. R ²
0.104 (2.63) ^b	0.003 (0.07)	-0.036 (-0.74)	0.524 (4.87) ^a	31.46%

$$X_{it} / P_{it-1} = \alpha_0 + \alpha_1 DR_{it} + \alpha_2 SWITCH + \alpha_3 DR_{it} \times SWITCH_{it} + \beta_0 R_{it} + \beta_1 R_{it} \times DR_{it} + \beta_2 R_{it} \times SWITCH_{it} + \beta_3 R_{it} \times DR_{it} \times SWITCH_{it} \quad (2)$$

Panel C: Both Years

α_0	α_1	α_2	α_3	β_0	β_1	β_2	β_3	Adj. R ²
0.154 (2.67) ^a	-0.108 (-1.24)	-0.068 (-1.04)	0.124 (1.22)	-0.435 (-2.06) ^b	0.590 (1.98) ^b	0.423 (1.98) ^b	-0.100 (-0.38)	25.46%

Total number of client observations in panels A, B, and C are, respectively, 75, 75, and 150.

Observations falling in the top or bottom 1% of price-deflated earnings or returns in each year are excluded. X_{it} is net income per share for firm i in fiscal year t , P_{it-1} is price per share at the beginning of the fiscal year. Annual returns are buy-and-hold fiscal year returns calculated from *Compustat*. DR_{it} is a dummy variable that equals 1 if $R_{it} < 0$ and 0 otherwise. $SWITCH$ equals 1 for year 2002 and 0 for year 2001. White (1980) heteroskedasticity-consistent t -statistics are in parentheses.

Models (1) and (2) also include four industry-dummy variables D_i representing the following groupings of two-digit SIC codes: 13, 35, 49, and 73.

a, b, and c indicate significance at the 0.01, 0.05, and 0.10 level for a two-tailed test.

TABLE 7
Coefficients and Adjusted R²s from Cross-Sectional Regressions of Earnings Changes on Prior Period Earnings Changes and Industry Dummies for Former Clients of Arthur Andersen for Years 2001 and 2002

$$\Delta X_{it} / P_{it-1} = \alpha_0 + \alpha_1 D_{it} + \beta_0 \Delta X_{it-1} / P_{it-2} + \beta_1 D_{it} \times \Delta X_{it-1} / P_{it-2} \quad (3)$$

Panel A: 2001

α_0	α_1	β_0	β_1	Adj. R ²
-0.053 (-1.63)	0.122 (1.90) ^c	0.002 (0.20)	-0.827 (-2.07) ^b	3.70%

Panel B: 2002

α_0	α_1	β_0	β_1	Adj. R ²
0.065 (0.58)	-0.220 (-2.51) ^b	0.102 (0.74)	-1.947 (-4.88) ^a	8.32%

$$\Delta X_{it} / P_{it-1} = \alpha_0 + \alpha_1 D_{it} + \alpha_2 SWITCH_{it} + \alpha_3 D_{it} \times SWITCH_{it} + \beta_0 \Delta X_{it-1} / P_{it-2} + \beta_1 \Delta X_{it-1} / P_{it-2} \times D_{it} + \beta_2 SWITCH_{it} \times \Delta X_{it-1} / P_{it-2} + \beta_3 D_{it} \times SWITCH_{it} \times \Delta X_{it-1} / P_{it-2} \quad (4)$$

Panel C: Both Years

α_0	α_1	α_2	α_3	β_0	β_1	β_2	β_3	Adj. R ²
-0.048 (-1.56)	0.112 (-1.67) ^c	0.108 (1.35)	-0.324 (2.87) ^a	0.000 (0.06)	-0.836 (-2.07) ^b	0.101 (0.74)	-1.114 (-1.96) ^b	7.55%

Total number of client observations in panels A, B, and C are, respectively, 794, 794, and 1,588.

Observations falling in the top or bottom 1% of price-deflated earnings or returns in each year are excluded. X_{it} is net income per share for firm i in fiscal year t , P_{it-1} is price per share at the beginning of the fiscal year. Annual returns are buy-and-hold fiscal year returns calculated from *Compustat*. DR_{it} is a dummy variable that equals 1 if $R_{it} < 0$ and 0 otherwise. $SWITCH$ equals 1 for year 2002 and 0 for year 2001. White (1980) heteroskedasticity-consistent t -statistics are in parentheses.

Models (3) and (4) also include six industry-dummy variables D_1 representing the following groupings of two-digit SIC codes: 13, 28, 35, 36, 38, and 73.

^a, ^b, and ^c indicate significance at the 0.01, 0.05, and 0.10 level for a two-tailed test.

TABLE 8
Coefficients and Adjusted R²s from Cross-Sectional Regressions of Cash Flow and Earnings on Returns and Industry Dummies for Former Clients of Arthur Andersen for Years 2001 and 2002

$$X_{it} / P_{it-1} = \alpha_0 + \alpha_1 DR_{it} + \alpha_2 SWITCH + \alpha_3 DR_{it} \times SWITCH_{it} + \beta_0 R_{it} + \beta_1 R_{it} \times DR_{it} + \beta_2 R_{it} \times SWITCH_{it} + \beta_3 R_{it} \times DR_{it} \times SWITCH_{it} \quad (2)$$

Panel A: Dependent Variable Is Cash Flow from Operations

α_0	α_1	α_2	α_3	β_0	β_1	β_2	β_3	Adj. R ²
0.216 (7.08) ^a	-0.043 (-1.11)	-0.038 (-0.92)	0.089 (1.75) ^c	0.073 (1.57)	0.098 (1.61)	0.181 (1.95) ^c	-0.091 (-0.85)	12.37%

Panel B: Dependent Variable Is Income Before Extraordinary Items and Discontinued Operations

α_0	α_1	α_2	α_3	β_0	β_1	β_2	β_3	Adj. R ²
-0.018 (-0.70)	0.017 (0.52)	0.041 (1.31)	0.048 (1.00)	0.014 (0.39)	0.295 (4.28) ^a	-0.014 (-0.23)	0.270 (2.16) ^b	10.03%

Total number of client observations in panels A and B are 1,712.

Observations falling in the top or bottom 1% of price-deflated earnings or returns in each year are excluded. In panel A (B), X_{it} is cash flow from operations (income before extraordinary items and discontinued operations) per share for firm i in fiscal year t , P_{it-1} is price per share at the beginning of the fiscal year. Annual returns are buy-and-hold fiscal year returns calculated from *Compustat*. DR_{it} is a dummy variable that equals 1 if $R_{it} < 0$ and 0 otherwise. $SWITCH$ equals 1 for year 2002 and 0 for year 2001. White (1980) heteroskedasticity-consistent t -statistics are in parentheses.

Model (2) also includes six industry-dummy variables D_1 representing the following groupings of two-digit SIC codes: 13, 28, 35, 36, 38, and 73.

^a, ^b, and ^c indicate significance at the 0.01, 0.05, and 0.10 level for a two-tailed test.