

THE IMPACT OF THE SARBANES-OXLEY ACT ON EARNINGS MANAGEMENT USING CLASSIFICATION SHIFTING: EVIDENCE FROM CORE EARNINGS AND SPECIAL ITEMS

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ABSTRACT

This paper examines whether the passage of the Sarbanes-Oxley Act (thereafter, SOX) curbs firms' earnings management behavior through shifting core expenses to special items. The passage of SOX could be an effective deterrent to misclassification activities as it aims to prevent accounting fraud and limit management misbehavior, imposing significant legal liabilities and stiffer penalties on managers for aggressive financial reporting. Alternatively, because classification shifting does not affect reported net income, thereby is less likely to be detected and associated with lower litigation risk, it is likely to be used as a substitute for accruals-based earnings management and therefore experiences an increasing trend in the post-SOX period. Using a sample period from 1988 to 2010, I find evidence consistent with the deterrent effect, that is, the magnitude of unexpected core earnings declines and firms shift fewer core expenses to special items after the passage of the SOX of 2002. My study adds to the literature on the impact of SOX on earnings management by finding that SOX is effective in curbing classification shifting between core earnings and special items, a form of earnings management that misrepresents components of earnings but has no effect on the bottom line income.

JEL: M4

KEYWORDS: SOX; Classification Shifting; Core Earnings; Special Items

INTRODUCTION

This paper examines whether the passage of the Sarbanes-Oxley Act (thereafter, SOX) affects firms' earnings management behavior through classification shifting between core expenses and special items. The SOX of 2002 was passed in July 2002 and became effective in August 2002, in response to a series of corporate scandals in the early 2000s. The purpose of SOX aims to prevent accounting fraud and curb management misbehavior, imposing significant legal liabilities and stiffer penalties on managers for aggressive financial reporting. As such, the passage of SOX could be an effective deterrent to misclassification since managers might have greater incentives to avoid using their discretion to overstate core earnings when face greater uncertainty and litigation costs after the enactment of SOX.

Earnings management has been an important concern for regulators since it is an accounting practice that potentially undermines the credibility of financial statements and impacts investor confidence in the integrity of financial reporting. Most prior studies focus on two types of earnings management: (1) accrual-based earnings management (Jones, 1991, Dechow et al., 1995) and (2) real earnings management (Gunny, 2005, Roychowdhury, 2006). A few recent studies (McVay, 2006, Fan et al., 2010, Barua et al., 2010) have focused on another form of earnings management: earnings management through classification shifting. Earnings management using classification shifting refers to managers involve classifying core expenses (the cost of goods sold and sales, general and administrative expenses) as noncore expenses (special items and discontinued operations) within the income statement to overstate core earnings while keep the GAAP

net income unchanged (McVay, 2006, Barua et al., 2010). Unlike other forms of earnings management such as accrual-based or real earnings management, classification shifting does not change the reported net income since it simply involves misclassifying core expenses as a noncore-expense categorization (special items or discontinued operations) in the income statement. Further, classification shifting does not change GAAP earnings, thereby limiting the scrutiny of auditors and regulators (Nelson et al., 2002). A number of accounting scandals occurring between 2000 and 2001 (e.g., Enron and WorldCom scandals) caused investors to raise concern about whether the accounting information in financial statements is consistent with economic reality. Such corporate scandals of the early 2000s led to the passage of SOX. A major objective of SOX was to restore the integrity of financial statements by constraining earnings management (Cohen et al., 2008) and placing greater accountability on CEOs/CFOs (Lobo and Zhou, 2006). To achieve this purpose, managers have been required to certify the accuracy of material and integrity of the financial statements. More recently, regulators have raised concern with the clarity of financial statements regarding the reporting of special items (Johnson et al., 2011). For instance, FASB and IASB (2008) state that “[A]n entity should present as part of that schedule [a schedule that reconciles the statement of cash flows to the statement of comprehensive income] information about amounts related to an unusual or infrequent event or transaction”.

Taken together, a number of changes in regulations such as the enactment of SOX, and regulators’ concern on the reporting of special items (FASB and IASB 2008), suggest that the examination of how regulations affect classification shifting should provide considerable regulatory/policy implications. As such, the purpose of my study is to examine the impact of SOX on earnings management using classification shifting. Firms can conduct classification shifting using different accounts in the income statements, such as special items, discontinued operations, or research and development. In this study, I only examine classification shifting through moving core expenses to special items. Specifically, I focus on the deliberate shifting of expenses between core expenses (the cost of goods sold and sales, general and administrative expenses) and special items and examine how the passage of SOX affects the behavior of classification shifting. In this study, I only examine income-decreasing special items, which refer to positive special items (McVay 2006). The variable of special items is measured as income-decreasing special items divided by sales. I then multiply the variable of special items by -1 to capture the positive association between unexpected core earnings and special items (McVay, 2006).

Special items are material unusual or nonrecurring items, reported as a separate line item as part of reported income from continuing operations under GAAP (McVay, 2006). Examples of special items include (1) one-time corporate restructuring charges, (2) write-downs or write-offs of assets including receivable, inventories, and equipment, (3) gain or losses on sales of assets or investments or litigation (McVay, 2006; Riedl and Srinivasan, 2010). In contrast with core expenses, special items are nonrecurring in nature and tend to be excluded from core earnings by analysts (Lougee and Marquardt, 2004) and have a lower degree of information content (Bradshaw and Sloan, 2002). As such, the separation of net income into recurring and nonrecurring components and investors’ tendency of assigning less weight to items further away from sales give firms the incentives to classify core expenses as special items. In general, the closer a line item is to sales, the more permanent this item tends to be viewed and the more heavily this item tends to be weighted (McVay, 2006). Classification shifting is thus a potential earnings management tool for firms to overstate core earnings and to meet the analyst forecast earnings benchmark (McVay, 2006, Haw et al., 2011). Using the data collected from the years 1988 - 2010, I estimate firms’ unexpected core earnings in a way similar to McVay’s (2006) research methodology, I observe a significant and positive association between unexpected core earnings (reported core earnings less predicted core earnings) and special items.

This association is consistent with prior studies (McVay, 2006, Fan et al., 2010) that find managers classifying core expenses as special items, which results in the increase in both core earnings and income-decreasing special items. To examine how the passage of SOX affects such relation, I divide my sample period into two periods: (1) the period prior to the passage of SOX, namely the pre-SOX period from the

years 1988 to 2002, and (2) the period after the passage of SOX, namely the post-SOX period from the years 2003 to 2010). Since SOX became effective in August 2002 and since it needs one year of lag data to estimate current unexpected core earnings, I define post-SOX era as the years 2003-2010. I find that both the magnitude of unexpected core earnings and classification shifting from core earnings to special items decline following SOX. My study contributes to the literature on the impact of SOX on firms' earnings management behavior. First, prior literature documents that accruals based earnings management has decreased after SOX (Lobo and Zhou, 2006, Cohen et al., 2008), while real activity earnings management has increased after SOX (Cohen et al. 2008). Most accruals-based and real activity earnings management affect reported net income. My study focuses on a different form of earnings management behavior that does not affect the bottom line income and finds that SOX is effective in curbing firms' earnings management behavior of shifting negative earnings from core earnings to special items. Secondly, most prior literature employs a relatively narrow post-SOX window (varying from one year to three years) in order to provide timely evidence on the SOX effect. Differently, I employ a longer post-SOX window (until year 2010) which allows us to observe the long-run effect of the regulation. Lastly, the findings of this study should shed additional insights into the effect of regulations on earnings management using classification shifting and have considerable regulatory/policy implications. The remainder of my paper is organized as follows. Section 2 presents a brief overview of prior literature and discusses my hypothesis development. Section 3 describes my methodology and data. Section 4 presents and discusses my empirical results. Section 5 concludes.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Earnings management has been an important concern for regulators as it is an accounting practice potentially undermining the credibility of financial statements and affecting investor confidence in the completeness of financial reporting. A few studies (McVay, 2006, Fan et al., 2010, Barua et al., 2010) have recently focused on another form of earnings management: earnings management through classification shifting. This earnings management tool refers to managers involve classifying core expenses (the cost of goods sold and sales, general and administrative expenses) as noncore expenses (special items and discontinued operations) within the income statement to overstate core earnings while keep the GAAP net income unchanged (McVay, 2006, Barua et al., 2010). Evidence of earnings management using classification shifting has been provided by several previous studies. For example, McVay (2006) and Fan et al. (2010) examine whether special items are a tool used by managers to increase core earnings and find managers deliberately shift core expenses to income-decreasing special items to inflate core earnings. Barua et al. (2010) investigate whether managers undertake classification shifting to manage earnings when reporting discontinued operations and find evidence consistent with the hypothesis that firms intentionally shift operating expenses to income-decreasing discontinued operations to overstate core earnings.

Unlike other forms of earnings management such as accrual-based or real earnings management, classification shifting does not change the reported net income since it simply involves misclassifying core expenses as a noncore-expense categorization (special items or discontinued operations) in the income statement. Further, classification shifting does not change GAAP earnings, thereby limiting the scrutiny of auditors and regulators (Nelson et al., 2002). A number of accounting scandals at companies such as Enron and WorldCom resulted in the decreased investor confidence in the quality of corporate financial information. For example, Enron deliberately shifted its liabilities and losses as part of core expenses to non-consolidated special purpose entities (Lobo and Zhou, 2006). This misclassification led to an unexpected nonrecurring charge of \$1.01 billion in October 2001 and a corresponding increase in core earnings. These high-profile accounting scandals ultimately led to the passage of the SOX of 2002.

As such, whether or not the passage of SOX of 2002 would affect firms' earnings management behavior should be an important concern for regulators and policymakers. Several recent studies investigate the impact of SOX on reported financial information and find firms become more conservative in financial

reporting after the passage of SOX. For example, consistent with the intention of SOX to increase financial reporting quality, Lobo and Zhou (2006) find that firms report lower discretionary accruals in the post-SOX period than in the pre-SOX period. A recent study by Cohen et al. (2008) reports an increase in the absolute value of discretionary accruals before SOX and a decline in the absolute value of discretionary accruals following the enactment of SOX. However, these studies only provide very early evidence on the consequences of SOX on earnings management because of their short post-SOX periods. Thus, it is interesting to investigate whether the influence of SOX on earnings quality has been sustainable since I have more data that are available now. More importantly, to my knowledge, no prior research has paid attention to the influence of SOX on earnings management through classification shifting, which has become an important research topic for earnings management in the past few years. Since several prior studies (McVay, 2006, Fan et al., 2010) have documented that special items are an earnings management tool, it is possible that earnings management using special items may be constrained by SOX as well.

Further, as such classification shifting is unlikely to detect and does not affect the bottom-line income of the firm, it is interesting to examine whether the passage of SOX would be an effective deterrent to such earnings management behavior. Conceptually, the impact of SOX on classification shifting can be argued in either direction. On one hand, SOX places greater accountability on CEOs/CFOs for the integrity of financial reporting. In particular, Section 302 of SOX requires CEOs/CFOs to certify the appropriateness of their financial statements and disclosures and to certify that they fairly present, in all material respects, the operations and financial condition of the company. Therefore, any type of earnings management behavior that misrepresents the underlying economy including classification shifting is likely to decrease following SOX. On the other hand, prior studies have found that the passage of SOX has altered different types of earnings management behavior in different directions. For instance, Cohen et al. (2008) find that firms switched to real earnings management from accrual-based earnings management after the passage of SOX possibly because real earnings management is less likely to detect and less subject to potential litigation costs. Compared to accruals based earnings management, classification shifting is likely to be subject to lower scrutiny of auditors and regulators and be less litigious because classification shifting has no effect on current period's bottom line income and other periods' reporting, absent additional earnings management (McVay, 2006). Therefore, in the post-SOX period, odds exist that classification shifting becomes another substitute for accruals based earnings management for those managers who are interested in boosting core earnings. As such, classification shifting from core earnings to special items will increase in the post-SOX era. Based upon the above reasoning, I form the following hypotheses positing that firms engage in less classification shifting following SOX:

- H1a: The magnitude of firms' unexpected core earnings declines after the passage of the SOX of 2002;*
H1b: Firms shift fewer core expenses to special items after the passage of the SOX of 2002.

Rejection of the above hypotheses, due to opposite association, would be consistent with firms substitute classification shifting for accruals based earnings management in the post-SOX period. Acceptance of the hypotheses would provide support for the deterring effect of SOX.

DATA AND METHODOLOGY

Data

The sample used in this study is collected for the years 1988 - 2010 from the 2011 Compustat Annual database. I eliminate firm-year observations with annual sales less than \$1 million to avoid the small deflator problem as sales is used as a scalar for the majority of the variables. I also exclude firm-year observations that had a fiscal-year-end change to ensure the comparability of years. For inclusion in the final sample, each firm-year is required to have all variables to estimate unexpected core earnings and other variables required in the analysis. Industry categorizations are based on Fama and French (1997). Special

items with missing data are set to zero. Following McVay (2006), I winsorize all continuous variables at the 1st and 99th percentile and expected core earnings is estimated by industry and by fiscal year. A minimum of 15 observations per industry-year is required to ensure a sufficiently large sample to estimate expected core earnings. After various sample attrition procedures, I arrive at a final sample with 109,940 firm-year observations, which includes 71,735 observations in the pre-SOX period and 38,205 observations in the post-SOX period.

Descriptive Statistics

Table 1 provides descriptive statistics for the full sample. The mean of core earnings, scaled by sales, for all firm-year observations is approximately 0.028. The mean of income-decreasing special items, as a percentage of sales, is approximately 0.40 percent. Since this study only examines income-decreasing special items, income-increasing items are not included in our analyses and are set to zero. The mean of unexpected core earnings (reported core earnings minus expected core earnings) is approximately -0.01.

Table 2 provides descriptive statistics for the main variables separately for the pre-SOX and post-SOX periods. For firm-year observations in the pre-SOX period, the mean of core earnings, as scaled by sales, is approximately 0.011; the mean of unexpected core earnings is approximately -0.009. The mean of income-decreasing special items, as a percentage of sales, is approximately 0.4 percent.

Table 1: Descriptive Statistics for the Full Sample

Variable	Mean	Median	Standard Deviation	25%	75%
<i>SALES_t</i> (in millions)	1538	139	4897	29	693
<i>UE_CE_t</i>	-0.010	0.004	0.234	-0.043	0.058
<i>CE_t</i>	0.028	0.109	0.564	0.031	0.214
<i>CE_{t-1}</i>	-0.026	0.110	0.862	0.033	0.216
<i>ATO_t</i>	2.800	1.729	4.030	0.844	3.056
<i>ACCRUALS_t</i>	-0.135	-0.058	0.354	-0.148	-0.007
<i>ACCRUALS_{t-1}</i>	-0.139	-0.054	0.421	-0.142	-0.004
<i>ΔSALES_t</i>	0.252	0.089	0.761	-0.024	0.268
<i>NEG_ΔSALES_t</i>	-0.047	-0.000	0.112	-0.024	0.000
<i>%SI_t</i>	0.004	0.000	0.022	0.000	0.000
<i>SIZE_t</i>	5.302	5.196	2.342	3.582	6.894
<i>ROA_t</i>	-0.029	0.025	0.221	-0.038	0.071
<i>OCF_t</i>	0.002	0.071	0.480	0.001	0.160
<i>BM_t</i>	0.642	0.521	0.946	0.273	0.882

N = 109,940. This table provides descriptive statistics for the full sample. Following is a description for each variable definition: *SALES_t* = Sales revenue in millions (#12); *UE_CE_t* = Unexpected Core Earnings, calculated as the difference between reported and predicted Core Earnings; *CE_t* = Core Earnings (before Special Items and Depreciation), calculated as (Sales - Cost of Goods Sold - Selling, General, and Administrative Expenses) (#13) / Sales (#12); *ATO_t* = Asset Turnover Ratio, measured as *SALES_t* (#12) / ((*NOA_t* - *NOA_{t-1}*) / 2), where *NOA*, or Net Operating Assets, is measured as the difference between Operating Assets - Operating Liabilities; Operating Assets is defined as Total Assets (#6) - Cash (#1) and Short-Term Investments (#32); Operating liabilities is defined as Total Assets (#6) - Total Debt (#9 and #34) - Book Value of Common and Preferred Equity (#60 and #130) - Minority Interests (#38); *ACCRUALS_t* = Operating Accruals, calculated as [Net Income before Extraordinary Items (#123) - Cash From Operations (#308-#124)] / Sales (#12); *ΔSALES_t* = Percent Change in Sales, defined as (*SALES_t* / (#12) - *SALES_{t-1}*) / *SALES_{t-1}*; *NEG_ΔSALES_t* = Percent Change in Sales (*ΔSALES_t*) if *ΔSALES_t* is less than 0, and 0 otherwise; *%SI_t* = Income-Decreasing Special Items scaled by sales and multiplied by (-1), when Special Items are income-decreasing, and 0 otherwise; *SIZE_t* = A nature logarithm of a firm's total assets (#6); *ROA_t* = Income before extraordinary items divided by average total assets, calculated as Net Income before Extraordinary Items (#123) / (Total Assets_t - Total Assets_{t-1}) (#6); *OCF_t* = Operating cash flow, defined as Cash from Operation (#308 - #124) / Sales (#12); *BM_t* = Ratio of book value to market value, defined as Book Value (#60) divided by Market Value (#25 x #199).

For firm-year observations in the post-SOX period, the mean of core earnings, as scaled by sales, is approximately 0.058; the mean of unexpected core earnings is approximately -0.011. The mean of income-decreasing special items, as a percentage of sales, is approximately 0.5 percent. Interestingly, while the mean (median) of core earnings for firms in the post-SOX period is larger than the mean (median) for firms in the pre-SOX period, the mean (median) of unexpected core earnings for firms in the post-SOX period is smaller than the mean (median) for firms in the pre-SOX period. This result seems to be consistent with the expectation that SOX has a deterrent effect upon classification shifting between core earnings and special

items. In addition, the mean of income-decreasing special items for firms in the post-SOX period is higher than that for firms in the pre-SOX period, a result consistent with prior research (e.g. Johnson et al., 2011) that finds the magnitude of special items has increased significantly in the past three decades.

Table 2: Descriptive Statistics for the Pre- and Post-SOX Sample

Variable	Period					
	Pre-SOX			Post-SOX		
	Mean	Median	Standard Deviation	Mean	Median	Standard Deviation
<i>SALES_t</i> (in millions)	1142	103	4010	2282	251	6161
<i>UE - CE_t</i>	-0.009	0.005	0.238	-0.011	-0.002	0.226
<i>CE_t</i>	0.011	0.101	0.566	0.058	0.129	0.560
<i>CE_{t-1}</i>	-0.044	0.103	0.869	0.007	0.128	0.848
<i>ATO_t</i>	2.854	1.841	3.915	2.700	1.501	4.235
<i>ACCRUALS_t</i>	-0.131	-0.053	0.354	-0.142	-0.066	0.355
<i>ACCRUALS_{t-1}</i>	-0.131	-0.048	0.417	-0.154	-0.066	0.429
<i>ΔSALES_t</i>	0.275	0.090	0.809	0.209	0.088	0.657
<i>NEG_ΔSALES_t</i>	-0.048	0.000	0.115	-0.044	0.000	0.107
<i>%SI_t</i>	0.004	0.000	0.021	0.005	0.000	0.023
<i>SIZE_t</i>	4.868	4.694	2.254	6.117	6.158	2.287
<i>ROA_t</i>	-0.036	0.027	0.230	-0.016	0.022	0.201
<i>OCF_t</i>	-0.016	0.059	0.481	0.037	0.095	0.476
<i>BM_t</i>	0.651	0.522	0.984	0.625	0.519	0.871

This table provides descriptive statistics for the Pre-SOX period sample and Post-SOX period sample, separately. The sample size for the Pre-SOX period and Post-SOX period is 71,735 and 38,205 firm-year observations, separately. See Table 1 for the definition of each variable

RESULTS

Tests of Hypothesis

My empirical analysis examines whether the passage of the Sarbanes-Oxley Act constrains firms' earnings management behavior through shifting core expenses to special items. I follow McVay (2006) to measure core earnings, expected core earnings, and unexpected core earnings. To estimate expected core earnings, I use the following expectation model and make estimates on a cross-sectional basis by industry and fiscal year:

$$CE_t = \beta_0 + \beta_1 CET_{t-1} + \beta_2 ATO_t + \beta_3 ACCRUALS_{t-1} + \beta_4 ACCRUALS_t + \beta_5 \Delta SALES_t + \beta_6 NEG_ \Delta SALES_t + \varepsilon_t \quad (1)$$

Where:

SALES_t = Sales revenue in millions (#12);

CE_t = Core Earnings (before Special Items and Depreciation), calculated as (Sales - Cost of Goods Sold - Selling, General, and Administrative Expenses) (#13) / Sales (#12);

ATO_t = Asset Turnover Ratio, measured as $Salest$ (#12) / (($NOA_t - NOA_{t-1}$) / 2), where NOA , or Net Operating Assets, is measured as the difference between Operating Assets - Operating Liabilities; Operating Assets is defined as Total Assets (#6) - Cash (#1) and Short-Term Investments (#32); Operating liabilities is defined as Total Assets (#6) - Total Debt (#9 and #34) - Book Value of Common and Preferred Equity (#60 and #130) - Minority Interests (#38);

ACCRUALS_t = Operating Accruals, calculated as [Net Income before Extraordinary Items (#123) - Cash from Operations (#308-#124)] / Sales (#12);

ΔSALES_t = Percent Change in Sales, defined as ($Sales_t$ (#12) - $Sales_{t-1}$) / $Sales_{t-1}$;

$NEG_ \Delta SALES_t$ = Percent Change in Sales ($\Delta SALES_t$) if $\Delta SALES_t$ is less than 0, and 0 otherwise.

I obtain coefficients from model (1) by industry-year and use them to measure expected core earnings. I then obtain unexpected core earnings, calculated as the difference between reported and predicted core earnings. To test my main hypotheses, I follow McVay (2006) and modify her model to include SOX, the interaction of special items with SOX, and follow Barua et al. (2010) to add five control variables in McVay's (2006) model: firm size ($SIZE_t$), book-to-market ratio (BM_t), accruals ($ACCRUALS_t$), operating cash flow (OCF_t), and return on assets (ROA_t).

$$UE_CE_t = \alpha_0 + \alpha_1 \%SI_t + \alpha_2 SOX + \alpha_3 \%SI_t * SOX + \alpha_4 SIZE_t + \alpha_5 ROA_t + \alpha_6 ACCRUALS_t + \alpha_7 OCF_t + \alpha_8 BM_t + \varepsilon_t \quad (2)$$

Where, for firm i and year t:

UE_CE_t = Unexpected Core Earnings, calculated as the difference between reported and predicted Core Earnings;

$\%SI_t$ = Income-Decreasing Special Items scaled by sales and multiplied by (-1), when Special Items are income-decreasing, and 0 otherwise;

$SOX = 1$ if firms with fiscal years ending in 2003 and 0 otherwise;

$ACCRUALS_t$ = Operating Accruals, calculated as [Net Income before Extraordinary Items (#123) - Cash From Operations (#308-#124)]/Sales (#12);

$\Delta SALES_t$ = Percent Change in Sales, defined as $(Sales_t(\#12) - Sales_{t-1}) / Sales_{t-1}$;

$NEG_ \Delta SALES_t$ = Percent Change in Sales ($\Delta SALES_t$) if $\Delta SALES_t$ is less than 0, and 0 otherwise;

$SIZE_t$ = A natural logarithm of a firm's total assets (#6);

ROA_t = Income before extraordinary items divided by average total assets, calculated as Net Income before Extraordinary Items (#123)/(Total Assets_t - Total Assets_{t-1}) (#6);

OCF_t = Operating cash flow, defined as Cash from Operation (#308 - #124)/Sales (#12);

BM_t = Ratio of book value to market value, defined as Book Value (#60)divided by Market Value (#25 x #199).

My dependent variable of interest is unexpected core earnings and independent variables of interest are SOX and the interaction term of special items with SOX ($\%SI*SOX$). Based on H1a that the magnitude of unexpected core earnings following SOX declines, I predict a negative association between unexpected core earnings and SOX ($\alpha_2 < 0$). Based on H1b that the passage of SOX curbs firms' earnings management through shifting core expenses to special items, I expect a negative coefficient on the interaction term of special items and SOX ($\alpha_3 < 0$). I make no prediction for the sign of the five control variables. Table 3 presents the regression results of Equation 2. The coefficient on $\%SI_t$ is positive and significant (0.442; $p < 0.001$), consistent with prior findings (McVay, 2006; Fan et al., 2010) that suggest firms shift core expenses to special items to inflate core earnings. The coefficient on SOX is negative and significant (-0.013; $p < 0.001$), indicating that the magnitude of unexpected core earnings decreases following the passage of SOX. The coefficient of interaction term between $\%SI_t$ and SOX is negative and significant (-0.195; $p < 0.001$), implying that the passage of SOX curbs firms' earnings management using classification shifting, a result consistent with firms misclassifying fewer core expenses as special items in the post-SOX period than in the pre-SOX period.

Table 3: Regressions Comparing Unexpected Core Earnings between Pre-SOX and Post-SOX Periods

$UE_CE_t = \alpha_0 + \alpha_1 \%SI_t + \alpha_2 SOX + \alpha_3 \%SI_t * SOX + \alpha_4 SIZE_t + \alpha_5 ROA_t + \alpha_6 ACCRUALS_t + \alpha_7 OCF_t + \alpha_8 BM_t + \varepsilon_t$ (2)		
Variables	Predicted Sign	UE CE
Intercept	?	0.013*** (7.98)
%SI	+	0.446*** (12.68)
SOX	-	-0.013*** (-10.01)
%SI*SOX	-	-0.199*** (-3.55)
SIZE	?	-0.002*** (-6.70)
ROA	?	-0.121*** (-30.79)
ACCRUALS	?	0.045*** (22.44)
OCF	?	0.320*** (211.32)
BM	?	-0.007*** (-11.58)
Adjusted R ²		37.63%

Table 3 reports the results from regressions of UE_CE on $\%SI$, SOX , the interaction term between $\%SI$ and SOX , and other control variables. UE_CE represents unexpected core earnings, calculated as the difference between reported and predicted core earnings. $\%SI$ represents income-decreasing special items scaled by sales and multiplied by (-1), when Special Items are income decreasing, and 0 otherwise. $SOX = 1$ if firms with fiscal years ending in 2003 and 0 otherwise. See Table 1 for other variable definitions. *, **, and *** indicate significance at the 0.1, 0.05, and 0.01 levels, respectively, for two-tailed tests. Figures in parentheses are t-statistics.

Overall, the results of Table 3 are consistent with the notion that SOX serves as effective deterrence to earnings management using classification shifting between core earnings and special items. The results do not support the argument that classification shifting is used as a substitute for accruals based earnings management in the post-SOX period. After all, many accruals-based earnings management activities aim at inflating the bottom line income but classification shifting cannot serve such a purpose.

Additional Tests

First, I redefine post-SOX period as years 2002-2010 and the results are similar when I define post-SOX period as years 2003-2010. Second, I also define SOX as 1 for firms with fiscal years ending in and after August 2002 and 0 otherwise since SOX became effective in August 2002. The results are similar when I define post-SOX period as years 2003-2010. To conclude, my results are not sensitive to alternative cutoffs for pre- and post-SOX periods.

CONCLUDING COMMENTS

This paper examines whether the passage of SOX (1) reduces the magnitude of unexpected core earnings and (2) curbs firms' earnings management behavior through shifting core expenses to special items. The SOX of 2002 was passed in July 2002 and became effective in August 2002, in response to a series of corporate scandals in the early 2000s. The purpose of SOX aims to prevent accounting fraud and curb management misbehavior, imposing significant legal liabilities and stiffer penalties on managers for aggressive financial reporting. Classification shifting misrepresents components of earnings, which tend to be weighted differently by financial information users. However, it does not affect reported net income, thereby is less likely to be detected and is associated with less litigation risk. Such type of earnings management tool is likely to be used as a substitute for accruals-based earnings management in the post-SOX period by managers who have intention to inflate core earnings. As such, it is interesting to investigate whether the passage of SOX is an effective deterrent to misclassification.

I examine a long window of 1988 to 2010 in order to observe not only the short run but also the long run effect of SOX. Following a research methodology similar to that employed by McVay (2006), I first document a positive association between unexpected core earnings and positive special items, a result consistent with prior research (McVay, 2006, Fan et al., 2010). As to my main findings, my results show that (1) the magnitude of unexpected core earnings decreases after the passage of SOX and (2) the passage of SOX limits firms' earnings management using special items as a tool to inflate their core earnings. Overall, my findings are consistent with my main hypothesis that firms engage in less earnings management using classification shifting between core earnings and special items in the post-SOX period than in the pre-SOX period. I believe this study enriches the literature on classification shifting and provides evidence about the impact of SOX on earnings management through classification shifting and the trend of earnings management using special items as a tool following SOX. I also believe that the findings of this study should shed additional insights into the effect of regulations on earnings management using classification shifting and have considerable regulatory/policy implications.

A few caveats are in order. First, even though I follow prior research to use a normal model of core earnings to estimate the unexpected core earnings there may still be error in the measure of unexpected core earnings. Future research could consider exploring an improved model to re-examine this issue. Second, I focus only on the impact of regulations on a company's classification shifting behavior within the United States, so my inferences may not be generalized to an international context. Future research can consider extending my analysis to examine how the adoption of international regulations (e.g., International Financial Reporting Standards) affects the classification shifting behavior in an international setting.

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