

ACCRUALS QUALITY AROUND THE IMPLEMENTATION OF FIN 46

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ABSTRACT

The Financial Accounting Standards Board (FASB) issued Interpretation No. 46 (FIN 46), Consolidation of Variable Interest Entities-An Interpretation of ARB No. 51, in January 2003 and revised it in December 2003, with the objective of improving the transparency of financial information. Under FIN 46, companies are required to consolidate Variable Interest Entities (VIEs) on their financial statements if they are the primary beneficiaries of the VIEs. This paper empirically examines the change in accruals quality around the implementation of FIN 46. In this research the author compares a manually collected sample of firms affected by FIN 46 with a manually collected sample of firms disclosing no material impact from FIN 46. As a result the author finds that firms affected by FIN 46 experience a decrease in accruals quality compared to firms reporting no material impact from FIN 46. Additional analysis shows that among firms affected by FIN 46, firms consolidating VIEs experience a decrease in accruals quality compared to firms restructuring or terminating VIEs.

Keywords: FIN 46, Accruals Quality, VIE, SPE.

INTRODUCTION

The Enron scandal in 2001 drew attention to the financial reporting problems related to off-balance sheet debt and undisclosed losses from the use of Special Purpose Entities (SPEs). In response to the misuse of the consolidation rules related to SPEs, the Financial Accounting Standards Board (FASB) issued Interpretation No. 46 (FIN 46), Consolidation of Variable Interest Entities-An Interpretation of ARB No. 51, in January 2003 and revised it in December 2003, with the objective of improving the transparency of financial information¹. Under FIN 46, companies are required to consolidate an SPE on their financial statements, if they are the primary beneficiary of the SPE, regardless of their voting interest in the SPE². This study investigates whether the accruals quality of firms affected by FIN 46 changes around the implementation of this new accounting standard.

To address this question, the author compares the accruals quality of firms affected by FIN 46 before and after the implementation of this accounting pronouncement. The author uses a manually identified sample of firms by examining their SEC filings. The author measures accruals quality using the accruals estimation errors and the standard deviation of accruals estimation errors. In order to measure accrual estimation errors, the author uses the Dechow and Dichev (2002) model (DD Model hereinafter) and the modified version of the DD model suggested by McNichols (2002) (modified DD Model hereinafter) as applied by Francis et al. (2005).

The author finds that firms affected by FIN 46, compared to firms reporting no material impact from FIN 46, experience a decrease in accruals quality measured by the accrual estimation errors from the modified DD model and the standard deviation of the residuals from the DD model and the modified DD model. The author also conducts additional analysis to the

firms affected by FIN 46. Among these affected firms, firms consolidating VIEs, compared to firms restructuring or terminating VIEs, experience a decrease in accruals quality measured by the accrual estimation errors from the modified DD model and the standard deviation of the residuals from the DD model and the modified DD model.

The results help us understand the changes in accruals quality for firms impacted by FIN 46. Although the consolidation process and improved disclosure under FIN 46 improves the transparency of financial reporting, the accruals quality may be worsened.

The findings in this study contribute to the literature in several ways. First, this study adds to the literature on the impact of FIN 46 on financial reporting. Prior studies investigate the economic consequences of FIN 46 such as the cost of capital (Callahan et al., 2012), analyst forecast precision (Gurun et al., 2012), and earnings response coefficients (Gurun et al., 2012), this study examines the effects of FIN 46 on accruals quality. Second, this study contributes to the stream of studies on off-balance sheet items in general. While prior studies provide evidence that firms with SPEs manage earnings through off-balance sheet activities, this study extends prior research by testing whether the changes in rules related to SPEs affect the quality of accruals. Third, this study contributes to the literature that examines how mandatory changes in accounting standards affect financial reporting quality. It provides evidence that the implementation of accounting standards may bring unexpected costs of suffering accrual quality.

BACKGROUND

SPEs are subsidiaries created for a limited purpose, with a limited life and limited activities, and designed to benefit their sponsoring companies³. The main applications of SPEs include off-balance sheet securitizations, long-term leases and Research and Development (R&D) funds. Generally, SPEs have the following characteristics: thinly capitalized; no independent management or employees; a trustee serving as the intermediate between the SPE and the sponsoring company by performing administrative functions (Soroosh & Giesielski, 2004). Before the implementation of FIN 46 in 2003, U.S. GAAP required the consolidation of SPEs based solely on voting rights. Specifically, the sponsor of a SPE did not need to consolidate the SPE if a third party had a residual equity capital investment at risk of at least three percent of the SPE's total capital.

In 2003, FASB issued interpretation No. 46, Consolidation of Variable Interest Entities- An Interpretation of ARB No. 51 (FIN 46), in January and revised it in December. FIN 46 mandates consolidation by setting criteria on whether the sponsor is the primary beneficiary of the SPEs, instead of depending on the voting interest. The primary beneficiary is the party that absorbs the majority of the expected residual return or the expected losses of the SPE it sponsors⁴.

The SPEs that are affected by FIN 46 are called Variable Interest Entities (VIEs), and should be consolidated by their primary beneficiaries. FIN 46 also mandates new disclosure requirements for sponsoring firms that have significant interests in VIEs (FASB, 2003).

HYPOTHESIS DEVELOPMENT

Although SPEs are used by sponsoring firms predominantly to keep assets and obligations off balance sheet for arranging external financing, they also provide managers with potential earnings management opportunities.

Feng et al. (2009) provide evidence that SPEs arranged for financial reporting purposes are associated with earnings management. Their data period is from 1997 to 2004 and they didn't examine whether the use of discretionary accruals to manage earnings changes for VIE firms after FIN 46. Dechow and Shakespeare (2009) investigates whether firms manage earnings by using gain on securitizations of assets. They document that many securitization transactions occur in the last few days of the quarter during the first three quarters taking advantage of relax disclosure requirements for the quarterly financial reporting. They find these transactions are associated with incentives for earnings management. Dechow et al. (2010) also provide evidence consistent with firms with SPEs manage earnings by using flexibility available in accounting rules.

Firms with VIEs subject to FIN 46 respond to the standard by consolidating, restructuring or terminating their VIEs. to avoid consolidation. In each case, the earnings management using VIEs can be mitigated. Besides, increased disclosure improves accounting transparency and reduces information asymmetry, firms tend to engage in less earnings management and thus improve the quality of accruals (Lobo and Zhou, 2001). However, the provision of FIN 46 can also be associated with more earnings management. The consolidation rules of VIEs result in not only increases in both assets and liabilities of the sponsoring firms, but also increases in the depreciation expense of the fixed assets and interest expense of the debt, which were previously kept away from the income statement. Thus the consolidation of SPEs may lead to a decrease in net income. Due to the decrease in the accounting rate of returns, managers may have incentives to manage earnings upward.

If the off-balance sheet SPEs were used to manage earnings, consolidating them on the financial statements or terminating them makes firms lose such channels to manipulate earnings, thus the earnings may be manipulated in other ways that cannot be kept off the books any more. On the other hand, earnings management can be achieved using different methods including manipulating accruals or real activities, and there is a trade-off between these two methods, that is, if the costs of one method increase, firms may switch to another method to manage earnings (Zang, 2012). If SPEs are used more for real-activity earnings management, firms consolidating or terminating previously off-book SPEs will lose the shelter for such earnings management, they may resort to more accrual-based earnings management.

Considering the discussion above on the possibility of decreasing or increasing earnings management, the author expects that FIN 46 may affect either direction of the change in accruals quality. More formally, the hypothesis is as follows:

H1: Firms with VIEs experience a change in accruals quality after FIN 46 compared to firms reporting no material impact from the standard.

RESEARCH DESIGN

Accruals Quality Measures

The accruals quality measures used in this study are based on the accruals estimation error model developed by Dechow and Dichev (2002) (DD Model hereinafter). Accruals estimation errors are derived from the following model that specifies working capital accruals as a function of previous, current and future period operating cash flow realizations.

$$\Delta WC_t = \alpha_0 + \alpha_1 CFO_{t-1} + \alpha_2 CFO_t + \alpha_3 CFO_{t+1} + \varepsilon_t \quad (1)$$

Where,

ΔWC_t =Change in working capital, calculated as: change in accounts payable+change in inventory-change in taxes payable+change in other assets (net).

CFO =Cash flow from operations.

Following McNichols (2002) and Francis et al. (2005), the author also includes the current year change in sales (REV) and the current year level of property, plant and equipment (PPE) as additional controls variables in Dechow and Dichev (2002)'s model (modified DD Model hereinafter).

$$\Delta WC_t = \alpha_0 + \alpha_1 CFO_{t-1} + \alpha_2 CFO_t + \alpha_3 CFO_{t+1} + \Delta REV_t + PPE_t + \varepsilon_t \quad (2)$$

Following Francis et al. (2005), the author estimates both equations (1) and equation (2) cross-sectionally by year and by two-digit SIC code. The absolute value of firm-specific residuals ε_8 in equation (1) denoted as ABS_DD and in equation (2) as ABS_MDD .

The author also uses the standard deviation of firm- and year-specific accrual estimation errors derived from equations (1) and (2). Smaller (larger) standard deviations of accrual estimation errors are relatively better (poorer) quality of accruals. The author derives accruals quality measures by calculating standard deviations of firm- and year-specific residuals during the four years before and after the implementation of FIN 46. These accrual quality measures are denoted as STD_DD (from equation (1)) and STD_MDD (from equation (2)).

Empirical Models for Hypotheses Testing

To test $H1$, the author uses a sample including both firms affected by FIN 46 (i.e., the consolidated group and the unconsolidated group) and firms not affected by FIN 46 (i.e., the no impact group). The author uses the following model that specifies Accruals Quality (AQ) as a function of fundamental firm characteristics along with indicator variables for firms affected by FIN 46 and for the year of implementation of FIN 46, and interactions between them:

$$AQ_t = \beta_0 + \beta_1 POST2003_t + \beta_2 FIN46_t + \beta_3 POST2003 \times FIN46_t + \beta_4 LEVERAGE_t + \beta_5 GROWTH_t + \beta_6 SIZE_t + \beta_7 ROA_t + \beta_8 LOG_CYCLE_t + \varepsilon_t \quad (3)$$

Where,

AQ_t =One of the four accrual quality measures described above.

$FIN46$ =1 for firms affected by FIN 46, 0 otherwise.

$LEVERAGE_t$ =Book value of total debt divided by book value of total assets.

$GROWTH_t$ =Change in sales from year t-1 to year t scaled by beginning total assets.

ROA_t =Return on assets.

LOG_CYCLE_t =Logarithm of the length of operating cycle.

$POST$ =Indicator variable for the post-adoption period of FIN 46.

The variable of interest is the interaction variable $POST \times FIN46$. The coefficient for the interaction term (β_3) indicates whether the accruals quality changed for firms affected by FIN 46 during the post implementation period relative to firms reporting no material impact from the standard. A significant positive (negative) coefficient suggests that firms affected by FIN 46 are associated with poorer (better) accruals quality during the post-implementation period compared to firms not affected by FIN 46.

DATA AND SAMPLE

Empirical analyses in this study are mainly conducted on a sample formed by manually identifying firms that are affected by FIN 46 and firms that disclose no material impact from FIN 46 in their 10-K or 10-Q filings. To identify these firms, the author follows the approach used by Callahan et al. (2012). The author uses 10-K wizard to search in SEC filings using key words such as “*FIN 46*”, “*variable interest entity*”, “*variable interest entities*”, “*VIE*” and “*VIEs*”, then identify 373 firms that disclose that they adopt FIN 46. Among these firms, 260 firms adopt FIN 46 by consolidating their VIEs, while 113 firms terminate, restructure, divest or dispose of their VIEs. The author also finds 1077 unique firms reporting “*no impact*” or “*no material impact*” from FIN 46 in their 10-Ks.

Sample Derivation

Table 1 SAMPLE DERIVATION	
Group 1: Firms consolidating VIEs	
Number of firms found in 10-K wizard.	260
Number of firms that have non-missing values.	121
After excluding financial firms.	104
Number of observations for non-financial firms for years 1988–2012.	1074
Number of observations for non-financial firms for years 1998–2007.	509
Group 2: Firms restructuring or terminating VIEs	
Number of firms found in 10-K wizard.	113
Number of firms that have non-missing values.	49
After excluding financial firms.	45
Number of observations for non-financial firms for year 1988–2012.	360
Number of observations for non-financial firms for year 1998–2007.	159
Group 3: Firms reporting no (material) impact from FIN 46	
Number of firms found in 10-K wizard.	1077
Number of firms that have non-missing values.	593
After excluding financial firms.	562
Number of observations for non-financial firms for year 1988–2012.	4672
Number of observations for non-financial firms for year 1998–2007.	2690

Table 1 provides the sample derivation. Searching using 10-K wizard, 260 firms consolidated VIEs through the adoption of FIN 46 (group 1). The sample is narrowed down to 121 firms after excluding firms with missing observations to estimate abnormal accruals. After deleting firms in financial industries (SIC 6000-6999), 104 firms are left. There are 1074 firm-year observations from 1988-2012 for group 1. Since the testing period is 1998-2007, the final sample for group 1 includes 509 firm-year observations. Following the same process, Groups 2 and 3 have 159 and 2690 firm-year observations, respectively from 1998-2007.

The pre-FIN 46 periods is defined as 1998-2001 and the post-FIN 46 period is defined as 2004-2007. The transition period 2002-2003 is excluded from the analyses because accounting adjustments during this transition period may artificially affect the results.^{5,6}

RESULTS AND DISCUSSION

Table 2						
DESCRIPTIVE STATISTICS						
Group 1: Firms consolidating VIEs						
	Mean	Q1	Median	Q3	SD	n
Size	7.301	6.335	7.550	8.800	2.060	509
Leverage	0.632	0.463	0.674	0.757	0.242	509
ABS_DD	0.043	0.010	0.024	0.048	0.060	509
ABS_MDD	0.034	0.008	0.020	0.041	0.045	509
STD_DD	0.046	0.018	0.031	0.052	0.058	509
STD_MDD	0.032	0.014	0.023	0.037	0.037	509
Group 2: Firms restructuring or terminating VIES						
	Mean	Q1	Median	Q3	SD	n
Size	6.836	5.936	7.013	7.836	1.597	159
Leverage	0.524	0.279	0.529	0.672	0.260	159
ABS_DD	0.037	0.012	0.028	0.051	0.033	159
ABS_MDD	0.031	0.013	0.023	0.042	0.027	159
STD_DD	0.043	0.021	0.038	0.059	0.027	159
STD_MDD	0.037	0.021	0.032	0.045	0.025	159
Group 3: Firms reporting no (material) impact from FIN 46						
	Mean	Q1	Median	Q3	SD	n
Size	4.767	3.297	4.720	6.187	2.098	2690
Leverage	0.525	0.236	0.446	0.683	0.418	2690
ABS_DD	0.066	0.018	0.041	0.083	0.076	2690
ABS_MDD	0.058	0.015	0.034	0.071	0.071	2690
STD_DD	0.078	0.030	0.054	0.097	0.080	2690
STD_MDD	0.065	0.023	0.041	0.082	0.069	2690

Table 2 provides the descriptive statistics of the accruals quality measures and the control variables for the three groups of firms from 1998 to 2007.⁷ The mean absolute values of the accrual estimation errors from the DD 2002 model (*ABS_DD*) are 0.043 for group 1, 0.037 for group 2 and 0.066 for group 3. *ABS_MDD* is the absolute value of the accrual estimation errors from the modified DD model in McNichols (2002) and Francis et al. (2005). The mean *ABS_MDD* is 0.034 for group 1, 0.031 for group 2 and 0.058 for group 3. *STD_DD* is the standard deviation of the accrual estimation errors in DD 2002 model. *STD_DD* is 0.046 for group 1, 0.043 for group 2 and 0.078 for group 3. There is less variation in accrual estimation errors for firms that consolidate than those that do not consolidate. *STD_MDD* is standard deviation of the accrual estimation errors from the modified DD model in McNichols (2002) and Francis et al. (2005). Group 1 has mean *STD_MDD* at 0.032, while group 2 has 0.037 and group 3 has 0.065.

The mean *SIZE* of group 1 and group 2 are 7.301 and 6.836 respectively, while the mean size of group 3 is 4.767. This is consistent with the fact that firms with SPEs (VIEs) are usually larger firms since they have better technical expertise to handle the complex financing arrangement (SEC, 2005; Feng et al., 2009). The mean *LEVERAGE* is 0.632 for group 1, 0.524 for group 2, and 0.525 for group 3. This indicates that firms that consolidate their SPEs (VIEs) have higher leverage, on average.

Multiple Regression Analyses

Accruals quality: Firms affected by FIN 46 vs. No impact firms

To test hypothesis 1 (*H1*) the author estimates equation (3) by using the following dependent variables: (a) the absolute value of accruals estimations errors from the DD model and Modified model–*ABS_DD* and *ABS_MDD*; (b) the standard deviation of accruals estimation errors from the DD model and Modified DD Model–*STD_DD* and *STD_MDD*.

Variable	<i>ABS_DD</i>		<i>ABS_MDD</i>	
	Coefficient	p-value	Coefficient	p-value
Intercept	0.047	0.007	0.030	0.047
POST	-0.004	0.406	0.000	0.972
FIN46	0.000	0.960	-0.004	0.479
POST*FIN46	0.012	0.205	0.017	0.032
Leverage	0.039	<0.0001	0.037	<0.0001
SGROWTH	0.025	<0.0001	0.025	<0.0001
SIZE	-0.010	<0.0001	-0.009	<0.0001
ROA	-0.045	<0.0001	-0.050	<0.0001
LOG_CYCLE	0.01	0.002	0.010	0.000
Adj. R2	18.32%		22.00%	
N	1557		1557	

The author estimates equation (3) by using the following dependent variables: the absolute values of accruals estimation errors (*ABS_DD* and *ABS_MDD* respectively) from the DD model and the Modified DD model. Results are presented in Table 3. *ROA* is negatively associated with *ABS_DD* and *ABS_MDD*, consistent with firms with better performance have higher accruals quality. The correlation is negative since the accruals quality is taken as the absolute value, and a lower value of the dependent variable indicates higher accruals quality. The coefficients on the variable of interest *POST*FIN46* are not significant for *ABS_DD* but positive and significant for *ABS_MDD* ($p=0.032$), suggesting that firms impacted by FIN 46 are likely to experience lower level of accruals quality measured by *ABS_MDD* compared to firms reporting no impact from the standard during the post implementation periods.

Variable	<i>STD_DD</i>		<i>STD_MDD</i>	
	Coefficient	p-value	Coefficient	p-value
Intercept	0.016	0.036	0.025	0.049
POST	-0.018	<0.0001	-0.007	0.026
FIN46	-0.007	0.337	-0.005	0.321
POST*FIN46	0.019	0.035	0.012	0.075
Leverage	0.025	0.001	0.020	0.000
SGROWTH	0.026	<0.0001	0.021	<0.0001
SIZE	-0.012	<0.0001	-0.010	<0.0001
ROA	-0.024	0.006	-0.022	0.000

LOG_CYCLE	0.024	<0.0001	0.016	<0.0001
Adj. R ²	22.23%		24.92%	
N	1321		1320	

The author then estimates equation (3) using the following dependent variables: accruals quality measured as the standard deviation of firm-specific accruals estimation errors (*STD_DD* and *STD_MDD* respectively) from the DD model and Modified DD model. Standard deviations are estimated by using firm specific accrual estimation errors from cross sectional regressions during four years pre-and post-FIN46 periods. Results are presented in Table 4.

The adjusted R² is 22.23% for the regression with *STD_DD* and 24.92% for *STD_MDD* as the dependent variable. An increase in adjusted R-square for the measure from the augmented model is consistent with the assertion made by Francis et al. (2005) that the modified model leads to “a better-specified stream of residuals”. Control variables are consistent with prior studies. Sales growth and operating cycle are positively associated with the accruals quality suggesting that the higher the sales growth or the larger the operating cycle, it is more difficult to estimate accruals. On the other hand, the coefficients on size are significantly negative suggesting that larger firms have more stable operations and more predictable accruals. The variable of interest *POST*FIN46* is significant in both estimations (p=0.035, p=0.075 respectively). These findings are consistent with the absolute value of accruals estimation errors (*ABS_MDD*) results reported in the previous table.

Overall, using two sets of proxies for accruals quality the author finds consistent results, which suggest that firms affected by FIN 46 are more likely to experience poorer accruals quality during the post-implementation period compared to firms that disclose no material impact by FIN 46.

Additional analysis: Firm consolidating VIEs vs. firm restructuring or terminating VIEs

Among the firms with VIEs under FIN 46, some respond to the standard by consolidating their VIEs on the financial statements, while some respond by restructuring or disposing of their VIEs so that they can keep their VIEs off the books. Callahan et al. (2012) find that firms consolidating their VIEs experience a bigger increase in cost of capital compared to those avoiding consolidation by restructuring or divesting their VIEs. Therefore, it is worthwhile to examine whether there are differential effects of FIN 46 on the accrual quality between the two groups.

	<i>ABS_DD</i>		<i>ABS_MDD</i>		<i>STD_DD</i>		<i>STD_MDD</i>	
Variable	Coefficient	p-value	Coefficient	p-value	Coefficient	p-value	Coefficient	p-value
Intercept	0.047	0.007	0.030	0.049	0.016	0.364	0.025	0.047
POST	-0.003	0.459	0.001	0.759	-0.017	<0.0001	-0.007	0.029
FIN46_CON	0.004	0.607	-0.001	0.857	-0.002	0.808	-0.004	0.498
POST*FIN46_CO	0.014	0.176	0.018	0.051	0.022	0.031	0.014	0.055
Leverage	0.038	<0.0001	0.036	<0.0001	0.024	0.001	0.020	0.000

SGROWTH	0.025	<0.0001	0.025	<0.0001	0.027	<0.0001	0.021	<0.0001
SIZE	-0.011	<0.0001	-0.010	<0.0001	-0.013	<0.0001	-0.010	<0.0001
ROA	-0.045	<0.0001	-0.050	<0.0001	-0.024	0.006	-0.022	0.000
LOG_CYCLE	0.010	0.001	0.010	0.000	0.025	<0.0001	0.016	<0.0001
Adj. R ²	18.47%		22.04%		22.40%		25.00%	
N	1557		1557		1321		1320	

Table 5 provides the regression results of the following model:

$$AQ_t = \beta_0 + \beta_1 POST2003_t + \beta_2 FIN46_t + \beta_3 POST2003 \times FIN46_t + \beta_4 LEVERAGE_t + \beta_5 GROWTH_t + \beta_6 SIZE_t + \beta_7 ROA_t + \beta_8 LOG_CYCLE_t + \varepsilon_t \quad (3)$$

Firms consolidating VIEs (group 1) are used as the test sample and firms restructuring or terminating VIEs (group 2) are used as the control sample. The variable of interest is $POST*FIN46_CON$. As reported in Table 5, the coefficient of $POST*FIN46_CON$ is significantly positive in the regression tests where accruals quality is measured by ABS_MDD , STD_DD , and STD_MDD , suggesting accruals quality of firms consolidating VIEs (group 1) decreases in the post-FIN 46 periods compared to firms restructuring or terminating VIEs (group 2).

CONCLUSION

This study examines how the accruals quality for firms affected by FIN 46 changes in the post-implementation periods. The author compares accruals quality of firms affected by FIN 46 before and after the implementation of this accounting pronouncement by using a number of proxies for accruals quality. The author finds that compared to firms reporting no material impact from FIN 46, firms adopting the new accounting guidance experience lower quality of accruals, measured by the accrual estimation errors from the modified DD Model (ABS_MDD) and the standard deviation of the residuals from the DD Model and its modified version (STD_DD and STD_MDD). Additional analysis shows that among firms affected by FIN 46, firms consolidating VIEs experience a decrease in accruals quality compared to firms restructuring or terminating VIEs.

These results help us understand the changes in accruals quality for firms impacted by FIN 46. Although the consolidation process and improved disclosure may enhance the transparency of financial reporting, firms may experience a decrease in the quality of accruals in the post-FIN 46 periods. The results should be interpreted with caution. Although decreased accruals quality is usually associated with increased earnings management in previous studies, there is no sufficient evidence here to suggest that firms adopting FIN 46 engage in more earnings management. There may be other reasons, even mechanical factors, for the decreased accruals quality. The limitation of this study is that it doesn't find the cause of decreased accruals quality after FIN 46. Typical earnings management measures were tested but there is no significant result found. Further research can examine the causes of the decreased accruals quality for firms affected by FIN 46. Further research can also differentiate the types of VIEs to test the differences in the levels of changes in accruals quality or other accounting consequences for firms affected by FIN 46.

ENDNOTES

1. The revised version is FIN 46 (R). In this paper, FIN 46 is used to refer to both FIN 46 and FIN 46 (R).
2. SPE is the general term for the off-balance sheet special purpose entities. The SPEs that should to be consolidated under FIN 46 are named variable interest entities (VIEs).
3. SPEs usually have the legal forms of partnership, trust, joint venture or corporation.
4. The absorption of expected losses is a more important condition than the absorption of expected return when evaluating whether a party is the primary beneficiary. In the cases when one party absorb the majority of the expected return of a VIE, while another party absorb the majority of the expected losses, the latter should be considered the primary beneficiary of the VIE and thus should consolidate the VIE (FASB, 2003).
5. Initial development of FIN 46 started in early 2002 and adoption of the pronouncement could take several months over 2003. Full implementation of the pronouncement is expected to be completed by 2004 and financial statement for fiscal year 2004 onward would reflect the effect of FIN 46.
6. In the regression analysis, it is also required that same firms must be in both the pre- and post- FIN 46 periods.
7. All the continuous variables are winsorized at 1% and 99%.

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