

# Functional Fixation Surrounding the Adoption of SFAS 142

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*Statement of Financial Accounting Standards No. 142, Goodwill and Other Intangibles (FASB 2001) altered the treatment of goodwill by replacing the systematic amortization of goodwill with impairment testing. This change affected earnings in two ways by requiring many firms to take sizable goodwill impairments if they cannot justify the amount of goodwill being carried on their balance sheets and by producing a “cosmetic” boost to the earnings of all firms who previously amortized goodwill. This study investigates whether investors assign value relevance to adoption-year goodwill impairments and to the increase in earnings resulting from goodwill non-amortization. Furthermore, this study investigates whether the assigned value relevance is due to new information content or due to functional fixation. Results indicate that unsophisticated investors functionally fixate on earnings while sophisticated investors do not, and that investors find value relevant information in goodwill impairments.*

**JEL Codes:** M41, M48, G11 and G14

## 1. Introduction

Statement of Financial Accounting Standards No. 142, *Goodwill and Other Intangibles* (FASB 2001) (SFAS 142) makes drastic changes in the accounting treatment of goodwill. Effective for fiscal years beginning after December 15, 2001, SFAS 142 ends the amortization of goodwill and instead requires firms to periodically test their goodwill for impairment. Previously, goodwill was accounted for under APB Opinion No. 17, *Intangible Assets* (APB 17) and was viewed by the FASB as a wasting asset. Thus, goodwill was amortized straight-line for a period of up to 40 years. By ending the systematic amortization of goodwill under SFAS 142, the FASB signaled that it now views goodwill as an indefinite-life asset.

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SFAS 142 affects earnings in two ways. First, many firms are required to take sizable goodwill impairments if they cannot justify the amount of goodwill being carried on their balance sheets. Investors should be able to approximate these impairments using data from prior financial statements and techniques commonly used in firm valuation. Investors may view these impairments as current realizations of previous economic events, in which case these impairments would not be value relevant for current returns. Alternatively, if investors do not realize that adoption-year goodwill impairments under SFAS 142 are the result of past economic events, they may view these impairments as new, value relevant information rather than the realization of a previous economic event.

Second, all firms who previously amortized goodwill receive a “cosmetic” boost to their earnings due to the non-amortization of goodwill following SFAS 142 adoption. The boost is cosmetic because it results strictly from a change in accounting standards and not from the activity of the firm itself. Investors could estimate this boost using data from prior financial statements. Therefore eliminating goodwill amortization should not influence rational investors’ firm valuations. In contrast, functionally fixated investors would not separate earnings into its various components. Thus, they may react to the boost in earnings from SFAS 142 in the same manner they would react to other earnings innovations (e.g. from a firm’s normal activities). This study investigates whether investors assign value relevance to adoption-year goodwill impairments and to the increase in earnings resulting from goodwill non-amortization. Furthermore, this study investigates whether the assigned value relevance is due to new information content or due to functional fixation.

This study is important because it offers evidence about investors’ reactions, both rational and irrational, to a newly issued accounting standard. The question of whether investors see new, value relevant information in adoption-year goodwill impairments is interesting because it examines investors’ current reactions to a prior unrealized economic event. If investors are able to accurately estimate the changes in goodwill value when those changes occur, then there should be no significant price reaction to the realization of those changes in value at a later date.

The question of whether investors functionally fixate on reported accounting earnings is particularly interesting in this setting for two reasons. First, prior studies have investigated functional fixation using relatively complex accounting events such as debt-for-equity swaps (Hand 1990) and deferred tax adjustments (Chen & Schoderbek 2000). The earnings boost from SFAS 142 results simply from the removal of one visible number – goodwill amortization. Second, the prior accounting events used to study functional fixation materially affected a relatively small number of firms, whereas SFAS 142 materially affects a much larger cross-sections of firms. Both the lack of accounting complexity and the widespread impact of SFAS 142 should help investors recognize and understand

how earnings are affected. Thus, examining functional fixation in this setting goes beyond confirming the existence of functional fixation and allows one to draw inferences about the depth of investors' functional fixation.

To provide evidence on how investors react to the realization of goodwill impairments and whether investors functionally fixate on reported earnings, we perform regression analysis on a sample of 472 NYSE, AMEX, and NASDAQ firms that reported goodwill on their balance sheets at the end of 2001 and adopted SFAS in the first quarter of 2002. We regress three-day Cumulative Abnormal Returns (CAR) calculated using the Fama-French three-factor model (Fama and French 1992) on components of earnings change, goodwill impairment, and institutional ownership. We separate the seasonally adjusted earnings change into two components: (1) the earnings change from firm operations and (2) the earnings change from goodwill non-amortization savings. We then interact these two earnings components with indicator variables for goodwill impairment and level of institutional ownership. Results indicate that investors do find new, value relevant information in adoption year goodwill impairments. This suggests that investors were unable to accurately estimate prior unrealized goodwill impairments. These results are consistent with prior findings (Chen et al. 2008). Results also indicate that investors assign value relevance to the component of earnings change due to goodwill amortization savings, and that this assignment of value relevance is due to functional fixation. Unsophisticated investors do not distinguish between earnings changes from normal operations and earnings changes from goodwill non-amortization. However, sophisticated investors do value the two earnings change components differently.

In summary, this study provides evidence that investors find new, value relevant information in adoption-year goodwill impairments and the component of earnings change due to goodwill non-amortization. Further analysis indicates that investors functionally fixate on reported accounting earnings following the adoption of SFAS 142.

The remainder of this paper is organized as follows. Section 2 discusses related literature and develops hypotheses. Section 3 discusses sample selection. Section 4 describes empirical methods and discusses the results, and Section 5 summarizes the study and offers conclusions.

## **2. Background and Hypotheses**

### **2.1 Background**

With the issuance of Statement of Financial Accounting Standards No. 141, *Business Combinations*, (SFAS 141) and SFAS 142, the FASB has created a comprehensive system for dealing with goodwill. SFAS 141 eliminates the pooling of interests method for business combinations and instead requires the

use of the purchase method. SFAS 141 is designed to increase comparability between firms by requiring a consistent accounting method for business combinations. In addition to requiring purchase method accounting, SFAS 141 gives additional guidance on how to classify goodwill and other intangible assets at the time of purchase.

SFAS 142 dovetails with SFAS 141 by changing the accounting treatment of previously recognized goodwill and newly recognized goodwill following purchase. Goodwill accounting was governed by APB 17 prior to the issuance of SFAS 142. Under APB 17, goodwill was viewed as a wasting asset that should be systematically amortized. SFAS 142 completely changes the way that the FASB views goodwill. Under SFAS 142, goodwill is viewed as an intangible asset having an indefinite life, and should therefore not be amortized at all.

Rather than amortizing goodwill, firms are now required to periodically test their goodwill for impairment using a two-step fair-value-based testing process. Firms must first compare the carrying value of each of their reporting units to the estimated fair value of that unit. If the fair value of the reporting unit is higher than the carrying value, no impairment exists. If the carrying value exceeds the fair value, then a second test must be conducted comparing the estimated value of the goodwill assigned to the reporting unit to the carrying value of the goodwill assigned to the reporting unit in order to determine the amount of the goodwill impairment. The effects of the elimination of goodwill amortization and the recognition of goodwill impairments on the valuation judgments of investors are the focus of this study.

## ***2.2 Goodwill's Value Relevance***

The literature on goodwill's relation with market value is sparse. However, the existing literature seems to tell a consistent story – goodwill amortization has little ability to explain market prices or returns prior to SFAS 142.

Jennings et al. (2001) use a sample of 3,431 firm-years from 1993 – 1998 to examine the effect of goodwill data on the usefulness of earnings. They regress security prices on EPS before goodwill amortization; then they again regress security prices on EPS after goodwill amortization. They find that in each of their sample years the R-squared for EPS before goodwill amortization explains more of the cross-sectional distribution of share prices than EPS after goodwill amortization. Next they regress share prices on EPS before goodwill amortization and goodwill amortization. They expect that goodwill amortization would have a significant negative coefficient if it has any ability to explain share prices. Instead, they find that goodwill amortization has an insignificant coefficient. They conclude that goodwill amortization has no ability to explain share prices.

Moehrle et al. (2001) examine the relative explanatory power of cash flows from operations (CFO), earnings before goodwill amortization, and earnings after goodwill amortization for security prices. They regress 12-month market adjusted returns on each performance measure and a one-period lag of each measure and find that the earnings measures outperform the CFO measure. However, similar to Jennings et al. (2001) they find that goodwill adds no explanatory power to earnings.

Henning et al. (2000) offer evidence that investors generally view goodwill as a non-wasting asset by examining goodwill in the year of acquisition. They separate goodwill into its various components and then regress 12-month returns on earnings and the goodwill components. They find a significant negative relation between returns and the component of goodwill associated with overpayment. However, they find that in future years goodwill amortization has no relation with returns.

One paper does offer some evidence that goodwill has some explanatory power in the capital markets. Jennings et al. (1996) regress market value of equity (MVE) on various components of expected future earnings, including goodwill amortization. They find a negative association between goodwill amortization and MVE. However, this association is much weaker than the association between MVE and other earnings components. They conclude that the amortization period for goodwill is inaccurate for most firms in their sample.

## ***2.3 Functional Fixation***

Hand (1990) proposes and tests the extended functional fixation hypothesis (EFFH). The EFFH states that the marginal investor (whether sophisticated or naïve) determines whether a particular security reacts in a manner consistent with the efficient capital markets hypothesis or in a manner consistent with functional fixation. He further states that the likelihood that the marginal investor is a sophisticated investor rises as a firm's level of institutional ownership rises. In his empirical analysis, he uses the re-announcement of gains from 232 debt-for-equity swaps that took place from 1981 – 1984 to test the EFFH. For each swap, the gain was announced at the time the swap took place. In an efficient market, investors will not react a second time to the re-announcement of the swap gain at the quarterly earnings announcement. However, a functionally fixated investor (i.e. unsophisticated investor) would react to the re-announcement of a previously announced gain.

Hand (1990) regresses two-day excess stock returns around the swap quarter's earnings announcement on a measure of unexpected earnings and the swap gain. He also interacts the swap gain with each firm's level of institutional ownership to proxy for investor sophistication. His results indicate that investors do react positively to the re-announcement of the gain, and that the likelihood of

investors reacting to the re-announcement increases as the level of institutional ownership decreases.

Chen and Schoderbek (2000) test functional fixation by examining deferred tax adjustments following the 1993 tax rate increase. They first analyze the behavior of analysts to see whether they rationally impounded estimates of deferred tax adjustments into their forecasts. To do this, they regress forecast errors on the deferred tax adjustments and unexpected items. They conclude that analysts did not impound the available information about deferred tax adjustments into their forecasts. They next test for functional fixation by investors around the 1993 third quarter earnings announcement.<sup>1</sup> They regress two-day cumulative abnormal returns (CAR) on the deferred tax adjustments, unexpected items, and the forecast error excluding the tax adjustments and unexpected items. Similar to the analyst results, they find that investors did not anticipate the effect of deferred tax adjustments on earnings, and that they impounded the earnings from the deferred tax adjustments into prices at the same rate as they impounded recurring earnings into prices.

Chen & Schoderbek then go on to investigate the impact of institutional ownership, voluntary disclosure of deferred tax adjustments, the sign of the adjustment, and the magnitude of the adjustment on functional fixation. They find that analysts were unaffected by these firm characteristics, but that investor fixation is more pronounced for positive deferred tax adjustments and when the tax adjustments are not voluntarily disclosed. Unlike Hand (1990), they find no evidence that institutional ownership affects investors' fixation. They speculate that investors may be unable to adjust for accounting numbers that result from complex changes.

## **2.4 Hypotheses**

The vast majority of prior research on goodwill amortization's value relevance indicates that goodwill amortization has little or no value relevance. This lack of value relevance was cited by the FASB when describing the reasons for issuing SFAS 142 (FASB 2001). Prior to SFAS 142, goodwill amortization was subtracted as an expense on the income statement. Following SFAS 142, goodwill amortization is no longer subtracted and thus its absence results in an increase in earnings. Just as goodwill amortization had no value relevance prior to SFAS 142, there is no reason to believe that the increase in earnings that results from the absence of goodwill amortization will have value relevance post SFAS 142. This leads to my first hypothesis stated in null form:

**H1:** The increase in earnings due to goodwill non-amortization has no value relevance.

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<sup>1</sup> The third quarter of 1993 is when the deferred tax adjustments would impact reported earnings.

Despite prior evidence that goodwill amortization has no value relevance, there are two reasons to believe that investors may assign value relevance to the increase in earnings due to goodwill non-amortization. First, functional fixation suggests that investors may disregard the methods used to calculate earnings. If investors are functionally fixated they would value the increase in earnings from goodwill non-amortization similarly to a change in earnings from a firm's normal activities. A second possibility is that the earnings increase from goodwill amortization contains new value relevant information for investors. At the same time that SFAS 142 eliminates goodwill amortization, it also implements testing for goodwill impairments. If the amount of goodwill amortization (non-amortization) is related to the likelihood of goodwill impairment, then the earnings increase resulting from goodwill non-amortization will be value relevant.

To determine whether investors behave in a manner consistent with functional fixation or whether they behave in a rational manner, we analyze whether the reaction to the earnings increase resulting from goodwill non-amortization varies between sophisticated and unsophisticated investors. If functional fixation exists in this setting, then there will be a significant difference in the way that sophisticated and unsophisticated investors react to the change in earnings resulting from goodwill non-amortization. However, if the change in earnings due to goodwill non-amortization has value relevance because of a relation with goodwill impairments, there should be no difference in the reaction by different types of investors. This leads to my second hypothesis stated in null form:

**H2:** Unsophisticated investors do not functionally fixate on reported accounting numbers

SFAS 142 requires firms to periodically evaluate their goodwill for impairment beginning in fiscal years starting after December 15, 2001. Had SFAS 142 been in effect in earlier years, goodwill impairments would have occurred in those years when the economic events causing the impairments occurred. Therefore, initial goodwill impairments following the adoption of SFAS 142 represent a "catch up" adjustment. In other words, the goodwill impairment occurring in 2002 under SFAS 142 is the result of economic events that occurred in prior years. The methods used to determine whether an impairment exists under SFAS 142 are fair value methods that have been commonly used for firm and asset valuation in the past. In an efficient market, rational investors would react to a firm's need for goodwill impairment when the economic events causing that need occur regardless of whether or not the firm actually realizes the goodwill impairment at that time. This leads to my third hypothesis:

**H3:** Goodwill impairments due to the adoption of SFAS 142 will not have value relevance.

### **3. Sample Selection and SFAS 142 Earnings Effect**

#### **3.1 Sample Selection Procedures**

My initial sample consists of 600 randomly selected firms that have positive amounts of goodwill listed in the *Compustat* database for the fourth-quarter of 2001 and are traded on the NYSE, AMEX, or NASDAQ. Panel A of table 1 provides a complete description of the sample selection procedure. I require sample firms to have daily returns data listed in the *CRSP* database. This requirement eliminates 8 firms bringing the sample to 592 firms.

The large majority of firms eliminated from the sample are firms that do not adequately disclose goodwill amortization data for the fourth-quarter of 2001. Since goodwill amortization is eliminated by SFAS 142, we proxy for the this effect on first-quarter 2002 earnings using the fourth-quarter 2001 goodwill amortization disclosed in each firm's 2002 10-Q filings. 97 firms either do not disclose fourth-quarter 2001 goodwill amortization, or indicate that SFAS 142 does not have a material effect on their earnings. Eliminating these 97 firms brings the sample to 495 firms.

The final requirement we put on sample firms is that they have institutional ownership data available in *Compact Disclosure*. 23 of the sample did not have institutional ownership data available. Eliminating these 23 firms brings the final sample to 472 firms.

Panel C of table 1 gives some general descriptive statistics about the sample firms. The median market value of equity is \$595 million, while the 10<sup>th</sup> (90<sup>th</sup>) percentile market value of equity is \$46 (\$6,838) million. The median value of total assets for sample firms is \$637 million, and the 10<sup>th</sup> (90<sup>th</sup>) percentile of total assets is \$62 (\$8,628) million. The final row of panel C gives the distribution for the percentage of institutional ownership. The median institutional ownership is 59.57% of outstanding shares. The 10<sup>th</sup> (90<sup>th</sup>) percentile for institutional ownership is 14.77% (98.89%).

#### **3.2 SFAS 142 Earnings Effects**

Panel B of table 1 gives descriptive statistics about the effect of SFAS 142 on first-quarter 2002 earnings. The median earnings increase resulting from goodwill savings is approximately \$994,000. When viewed as a percentage of the seasonal change in earnings, the increase due to goodwill non-amortization represents 27.8% of the total change in earnings at the median. When viewed as a percentage of 2002 first-quarter earnings, the earnings increase due to goodwill non-amortization represents 17.2% of reported earnings. It is clear that SFAS 142 has a sizable effect on earnings both in terms of earnings changes and earnings levels.



**Table 1**  
*Sample Selection, Goodwill Savings Compared with Change in Earnings,  
and Other Descriptive Statistics*

**Panel A: Sample Selection**

	Number of Firms
Random Sample of Goodwill Firms from <i>Compustat</i>	600
Missing CRSP Data	<8>
Missing Goodwill Amortization Data in 10-Q Filing	<97>
Missing Institutional Ownership Data in <i>Compact Disclosure</i>	<23>
<u>Total Sample</u>	<u>472</u>

**Panel B: Goodwill Savings Compared with Change in Earnings**

	Percentile				
	10 <sup>th</sup>	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>
Value of Earnings Increase from SFAS 142 (MM\$)	0.0871	0.2621	0.9941	4.2861	15.0001
SFAS 142 Increase as a Percentage of Absolute Value of First Quarter 2002 Change in Earnings	0.0309	0.0889	0.2784	0.9024	2.3382
Goodwill Savings as a Percentage of Absolute Value of First Quarter 2002 Earnings	0.0199	0.0596	0.1723	0.4177	1.2516

**Panel C: Other Descriptive Statistics<sup>a</sup>**

	Percentile				
	10 <sup>th</sup>	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup>
Market Value of Equity (MM\$)	46.07	171.15	595.15	1909.09	6838.10
Total Assets (MM\$)	62.194	195.64	636.51	2178.00	8628.20
Percentage of Institutional Ownership	0.1477	0.3505	0.5957	0.7667	0.9889

<sup>a</sup> MVE and Total Assets are measured as of the first day of the first quarter 2002

## 4. Empirical Methods and Results

To provide evidence about investors' reaction to goodwill savings resulting from SFAS 142, we regress three-day cumulative abnormal returns on the component of seasonal change in earnings due to normal firm activity and the component of seasonal change in earnings due to goodwill savings.

$$CAR_i = b_0 + b_1 \Delta E\_NON142_i + b_2 \Delta E\_142_i + \varepsilon_i \quad (1)$$

The dependent variable,  $CAR_i$ , is the three-day cumulative abnormal return measured from day  $-1$  to day  $+1$  where day 0 is the date of earnings announcement.  $CAR_i$  is computed using the Fama-French three factor model (Fama and French 1992). To control for heteroskedasticity, all independent variables are scaled by total assets lagged four quarters.<sup>2</sup>  $\Delta E\_NON142_i$  is the component of seasonal change in earnings that is due to normal firm activity (e.g. not due to SFAS 142). It is calculated as the seasonal change in earnings from first-quarter 2001 to first-quarter 2002 minus the portion of seasonal change in earnings due to SFAS 142.  $\Delta E\_142_i$  proxies for that seasonal change in earnings due to SFAS 142. We obtain  $\Delta E\_142_i$  from disclosures in each firm's 2002 10-Q filings. All statistical tests use White's (1980) consistent covariance estimator, and outliers are identified using procedures recommended by Beasley et al. (1980).<sup>3</sup>

Hypothesis 1 states that investors do not assign value relevance to the increase in earnings due to goodwill amortization savings since that increase in earnings results strictly from a change in accounting standards. However, results presented in Table 2, Column 1 indicate that  $\Delta E\_142_i$ , the change in earnings due to goodwill amortization savings, has a positive, significant coefficient of 0.14 ( $t = 5.02$ ).  $\Delta E\_142_i$  is valued similar to  $\Delta E\_NON142_i$ , the change in earnings due to normal firm activity, which has a positive, significant coefficient of 0.13 ( $t = 4.87$ ). These results lead us to reject hypothesis 1.

To investigate whether the value relevance of  $\Delta E\_142_i$  is due to functional fixation, we add an indicator variable,  $IO_i$ , to equation (1) representing each firm's level of institutional ownership.  $IO_i$  takes on the value of 1 if the percentage of a firm's stock owned by institutional investors exceeds the sample median of 59.57%, otherwise  $IO_i$  equals 0. We then interact  $IO_i$  with

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<sup>2</sup> We lag total assets four quarters to assure that SFAS 142 has had no effect on the scalar. SFAS 142 was issued in July 2001. Results are similar when other scalars are used.

<sup>3</sup> 41 firms (8.7 percent) are identified as outliers using these procedures. Eliminating these firms brings my total sample to 431 firms.

$\Delta E\_NON142_i$  and  $\Delta E\_142_i$  to determine if sophisticated investors place different values on each component of change in earnings.

$$CAR_i = b_0 + b_1 \Delta E\_NON142_i + b_2 \Delta E\_142_i + b_3 IO_i + b_4 IO * \Delta E\_NON142_i + b_5 IO * \Delta E\_142_i + \varepsilon_i \quad (2)$$

If  $\Delta E\_142_i$  is value relevant because it contains new information, then sophisticated investors should not place a significantly different value on  $\Delta E\_142_i$  than unsophisticated investors. However, if  $\Delta E\_142_i$  is value relevant because investors are functionally fixated, then sophisticated investors should value  $\Delta E\_142_i$  differently than unsophisticated investors. Table 2, Column 2 presents results for equation 2 indicating that investors are functionally fixated.  $IO * \Delta E\_142_i$ , the interaction of the institutional ownership variable and the change in earnings due to goodwill amortization savings, has a negative, significant coefficient of  $-1.13$  ( $t = -2.37$ ). This means that sophisticated investors value the change in earnings due to goodwill amortization savings differently than unsophisticated investors. However, results show that sophisticated investors do not value the change in earnings due to normal firm activity differently than unsophisticated investors.  $IO * \Delta E\_NON142_i$ , the interaction of the institutional ownership indicator variable with the change in earnings due to normal firm activity, has an insignificant coefficient of  $-0.10$  ( $t = -0.44$ ). The coefficients on  $\Delta E\_NON142_i$  ( $0.13$ ,  $t = 4.93$ ) and  $\Delta E\_142_i$  ( $0.14$ ,  $t = 5.10$ ) remain positive and significant. Hypothesis 2 states that investors do not functionally fixate on reported accounting earnings. These results lead me to reject hypothesis 2.

To test investors' reaction to adoption-year goodwill impairments, we add an indicator variable,  $IMP_i$  to equations (1) and (2).  $IMP_i$  takes on the value of 1 if a goodwill impairment is taken during 2002 and is equal to 0 otherwise. We also interact  $IMP_i$  with  $\Delta E\_NON142_i$  and  $\Delta E\_142_i$  to measure whether goodwill impairments affect each component of earnings in the same way.

$$CAR_i = b_0 + b_1 \Delta E\_NON142_i + b_2 \Delta E\_142_i + b_3 IMP_i + b_4 IMP * \Delta E\_NON142_i + b_5 IMP * \Delta E\_142_i + \varepsilon_i \quad (3)$$

$$CAR_i = b_0 + b_1 \Delta E\_NON142_i + b_2 \Delta E\_142_i + b_3 IMP_i + b_4 IMP * \Delta E\_NON142_i + b_5 IMP * \Delta E\_142_i + b_6 IO_i + b_7 IO * \Delta E\_NON142_i + b_8 IO * \Delta E\_142_i + \varepsilon_i \quad (4)$$

**Table 2**  
*Regression of Cumulative Abnormal Returns (CAR) Surrounding the Announcement of  
2002 First-Quarter Earnings on Various Components of Earnings, Institutional Ownership, and  
Goodwill Impairment<sup>a</sup>*

Equation <sup>b</sup>	1	2	3	4
n	434	432	434	431
Adjusted $R^2$	1.85	2.08	4.36	4.48
Intercept	0.01	-0.01	0.01	0.01
( <i>t</i> -Statistic)	(0.16)	(-0.39)	(0.88)	(0.07)
$\Delta E\_NON142_i$	0.13	0.13	0.21	0.20
( <i>t</i> -Statistic)	(4.87)	(4.93)	(2.86)	(2.81)
$\Delta E\_142_i$	0.14	0.14	0.21	0.20
( <i>t</i> -Statistic)	(5.02)	(5.10)	(2.93)	(2.88)
$IMP_i$			-0.03	-0.03
( <i>t</i> -Statistic)			(-3.02)	(-3.00)
$IMP * \Delta E\_NON142_i$			-0.14	-0.14
( <i>t</i> -Statistic)			(-1.84)	(-1.80)
$IMP * \Delta E\_142_i$			-0.02	0.03
( <i>t</i> -Statistic)			(-0.11)	(0.17)
$IO_i$		0.01		0.01
( <i>t</i> -Statistic)		(1.53)		(1.60)
$IO * \Delta E\_NON142_i$		-0.10		-0.01
( <i>t</i> -Statistic)		(-0.44)		(-0.02)
$IO * \Delta E\_142_i$		-1.13		-0.88
( <i>t</i> -Statistic)		(-2.37)		(-2.07)

<sup>a</sup> Definition of variables:

$CAR_i$ : the three-day abnormal return on days (-1, +1) where earnings announced on day 0.

$\Delta E\_142_i$ : goodwill savings that occurred in the first quarter 2002 due to the non-amortization of goodwill estimated using 10-Q disclosures of goodwill amortization for Q4 2001.

$\Delta E\_NON142_i$ : the change in earnings from quarter q-4 to quarter q minus the change due to goodwill savings ( $\Delta E\_142_i$ ).

$IMP_i$ : equals 1 if an impairment of goodwill is taken during 2002, 0 otherwise.

$IO_i$ : equals 1 if the percentage of institutional ownership is greater than the median institutional ownership for the sample, 0 otherwise.

<sup>b</sup> All independent variables are scaled by market value of equity lagged four quarters.

Hypothesis 3 states that goodwill impairments resulting from SFAS 142 are not value relevant for current returns because these impairments are “catch up” impairments caused by economic events in prior periods. In an efficient market, rational investors would react to the needed goodwill impairment regardless of whether the impairment is realized in that period. However, we find (Table 2, Columns 3 and 4) that  $IMP_i$ , the indicator variable for goodwill impairment, has a significantly negative coefficient of  $-0.03$  ( $t = -3.00$ ) using equation 4. Results are nearly identical for equation 3. These results lead us to reject hypothesis 3. The interaction variable  $IMP * \Delta E\_NON142_i$  also has a significantly negative coefficient of  $-0.14$  ( $t = 1.80$ ). However,  $IMP * \Delta E\_142_i$  has an insignificant coefficient of  $0.03$  ( $t = 0.17$ ). This means that investors discount the portion of earnings change due to normal firm activity when a goodwill impairment exists, but they do not discount the portion of earnings change due to goodwill amortization savings.

In summary, results presented in table 2 indicate that investors find value relevant information in adoption-year goodwill impairments, that investors find value relevant information in the increase in earnings change due to goodwill amortization savings, and that the value relevance of the increase in earnings change due to goodwill amortization is the result of functional fixation.

## 5. Conclusions

SFAS 142 makes serious changes in the accounting treatment of goodwill by ending the amortization of goodwill and requiring firms to periodically test their goodwill for impairment. This affects earnings both through goodwill impairments and through the cessation of goodwill amortization. This study investigates whether investors assign value relevance to these goodwill impairments and to the change in earnings resulting from goodwill non-amortization. Furthermore, this study investigates whether the assigned value relevance is due to new information content or due to functional fixation.

This study is important because it offers evidence about investors’ reactions, both rational and irrational, to a newly issued accounting standard. The question of whether investors functionally fixate on reported accounting earnings is particularly interesting in this setting because prior studies have investigated functional fixation using relatively complex accounting events such as debt-for-equity swaps (Hand 1990) and deferred tax adjustments (Chen & Schoderbek 2000), and because SFAS 142 materially affects a large cross-sections of firms. Both the lack of accounting complexity and the widespread impact of SFAS 142 should help investors recognize and understand how earnings are affected. Thus, examining functional fixation in this setting goes beyond confirming the existence of functional fixation and allows one to draw inferences about the depth of investors’ functional fixation.

To provide evidence on how investors react to the realization of goodwill impairments and whether investors functionally fixate on reported earnings, we perform regression analysis on a sample of 472 NYSE, AMEX, and NASDAQ firms that reported goodwill on their balance sheets at the end of 2001 and adopted SFAS in the first quarter of 2002. We find that investors do find new, value relevant information in adoption year goodwill impairments. This suggests that investors were unable to accurately estimate prior unrealized goodwill impairments. These results are consistent with prior findings (Chen et al. 2008). Results also indicate that investors assign value relevance to the component of earnings change due to goodwill amortization savings, and that this assignment of value relevance is due to functional fixation. Unsophisticated investors do not distinguish between earnings changes from normal operations and earnings changes from goodwill non-amortization. However, sophisticated investors do value the two earnings change components differently.

In summary, this study provides evidence that investors find new, value relevant information in adoption-year goodwill impairments and the component of earnings change due to goodwill non-amortization. Further analysis indicates that investors functionally fixate on reported accounting earnings following the adoption of SFAS 142.

## References

- Chen, C., M. Kohlbeck, and T. Warfield 2008, "Goodwill Valuation Effects of the Initial Adoption of SFAS 142", *Advances in Accounting*, vol. 24, no. 1, pp. 72-81.
- Chen, K., and M. Schoderbek 2000, "The 1993 Tax Rate Increase and Deferred Tax Adjustments: A Test of Functional Fixation", *Journal of Accounting Research*, vol. 38, no. 1, pp. 23-44.
- Fama, E., and K. French 1992, "The Cross-Section of Expected Stock Returns", *The Journal of Finance*, vol. 47, no. 2, pp. 427-465.
- Hand, J. 1990, "A Test of the Extended Functional Fixation Hypothesis", *The Accounting Review*, vol. 65, no. 4, pp. 740-763.
- Henning, S., B. Lewis, and W. Shaw 2000, "Valuation of the Components of Purchased Goodwill", *Journal of Accounting Research*, vol. 38, no. 2, pp. 375-386.
- Jennings, R., M. LeClere, and R. Thompson 2001, "Goodwill Amortization and the Usefulness of Earnings", *Financial Analysts Journal*, vol. 57, no. 5, pp. 20-28.
- Jennings, R., J. Robinson, R. Thompson, and L. Duvall 1996, "The Relation Between Accounting Goodwill Numbers and Equity Values", *Journal of Business Finance and Accounting*, vol. 23, no. 4, pp. 513-533.
- Moehrle, S., J. Reynolds-Moehrle, and J. Wallace 2001, "How Informative Are Earnings Numbers That Exclude Goodwill Amortization?", *Accounting Horizons*, vol. 15, no. 3, pp. 243-255.