Earnings Management Under SFAS No. 115: Evidence From The Insurance Industry

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Abstract

Critics of SFAS No. 115 argue that allowing unrealized holding gains and losses on "available for sale" securities to bypass income and flow directly to owners' equity creates opportunities for gains trading and earnings management. That is, to achieve a desired earnings level, management may selectively sell securities with the realized gains and losses affecting income. This study provides empirical evidence that earnings management under SFAS No. 115 is occurring in the insurance industry.

Introduction

Statement of Financial Accounting Standards (SFAS) No. 115, *Accounting for Certain Investments in Debt and Equity Securities*, greatly altered how companies account for investments. Although the standard, which became effective in 1994, established accounting guidelines for all companies with investments in debt and equity securities, its most direct impact has been on financial institutions and insurance companies because of their significant investment holdings.[1] With SFAS No. 115, the FASB eliminated the inconsistent reporting requirements for investments among different industries and moved a step closer to fair value accounting.

SFAS No. 115 applies to all investments in debt securities and to investments in equity securities with readily determinable fair values, which generally means sales prices quoted on securities exchanges or in the over - the - counter market. Investment securities are classified in one of the following three categories:

Held-to-maturity (HTM) - Debt securities for which management has the positive intent and ability to hold to maturity. These securities are reported at amortized cost; unrealized holding gains and losses are not recognized.

Trading - Debt and equity securities purchased and held primarily to sell in the near future for short-term profit. These securities are reported at fair value; unrealized holding gains and losses are included in income.

Available-for-sale (AFS) - Debt and equity securities not classified as HTM or trading. These securities are reported at fair value; unrealized holding gains and losses are not included in income but are reported as a separate component of owners' equity.

The holding period for trading securities is typically days or even hours, and few entities

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hold securities that fall into this category. The "positive intent and ability" requirement for the HTM classification is fairly restrictive, and although classification as HTM is not uncommon, the most frequently used category is AFS. AFS securities may be sold in the short run or held long term, thus, presenting an entity with more flexibility than either of the other two classifications.

It is this flexibility associated with AFS securities that has led to criticism of SFAS No. 115. For example, Clark and Li (1994), Powers (1995), and Ivancevich et al. (1996) note that the AFS classification presents the opportunity for gains trading to increase or smooth income. Gains trading refers to the practice of selling securities with unrealized holding gains so that their realized gains increase income while securities with unrealized holding losses are held. The net effect is an increase in reported income. However, little empirical research has been performed to determine if gains trading or earnings management is actually occurring under SFAS No. 115. This article presents an examination of companies in the insurance industry to determine if securities classified as AFS are used for gains trading and earnings management.

Literature Review

The literature is reviewed from two perspectives. First, articles on earnings management in general are examined to gain insight into the motivation for earnings management and the variables used to test for its presence. Second, research on earnings management under SFAS No. 115 is reviewed.

Earnings Management Research

Although no universal definition of earnings management exists, Beattie et al. (1994, p. 792) note that it is "a process of taking deliberate steps within the constraints of generally accepted accounting principles to bring about a desired level of reported earnings." A subset of earnings management is income smoothing, which is reducing the variability of earnings to achieve an expected or desired level of income.

If market efficiency truly exists, a question arises concerning why earnings management would occur and, therefore, whether research on this topic is a worthwhile endeavor. More specifically, market efficiency assumes that financial statement users "see through" earnings manipulation and do not key on bottom line net income. Thus, there would appear to be little incentive for managers to manipulate earnings in an efficient market. Actual market efficiency or inefficiency, however, may have little do with whether earnings management occurs. What may be important is that managers believe the market to be inefficient and that the market relies upon accounting earnings. For example, Mayer-Sommer (1979), in a survey of the Fortune 500 controllers, found that 83 percent of these high-ranking managers rejected the notion of market efficiency.

Several incentives exist for managers to manage earnings. Holthausen (1990) notes that managers may engage in opportunistic behavior to maximize their own wealth through performance-based cash bonuses or the enhancement of share values when managers hold shares or share options. Earnings management may also result from an attempt to reduce the potential costs associated with political action. Managers may voluntarily reduce earnings to avoid political scrutiny and increased regulation (e.g., see Sutton, 1988; Wong, 1988; and Cahan, 1992).

Another stream of research suggesting the presence of earnings management focuses on the information perspective, which suggests that managers smooth income to provide information asymmetry between managers and claimholders (i.e., creditors and shareholders). This view holds that earnings management occurs to benefit both managers and claimholders. For example, Dye (1988) indicates that income smoothing enhances potential shareholders' perceptions of the entity. Trueman and Titman (1988) note that income smoothing may increase firm value by reducing the perceived level of bankruptcy risk.

Numerous explanatory variables have been empirically linked to earnings management. Guenther (1994), in an analysis of earnings management in response to corporate tax rate changes, found that entity size and debt levels affected the decision to make negative accounting accruals. Christie (1990) synthesized much of the empirical evidence on earnings management using accounting method choices and concluded that the following variables have explanatory powers across a wide range of situations: entity size, entity risk, managerial compensation, leverage, and constraints on interest coverage and dividend payout.

SFAS No. 115 Research

Because SFAS No. 115 has been in effect for a relatively short period of time, little empirical research exists on the effects of this standard. Beatty (1995) provides the only published study in this area. Although she primarily examined the financial differences between early and late adopters of SFAS No. 115, she concluded in a secondary area of her study that influencing earnings is an important factor in security classification decisions. However, for several reasons, the generalizability of her results for establishing the existence of gains trading under SFAS No. 115 is suspect.

First, her dependent variable, the portion of a portfolio classified as AFS, did not measure gains trading but, rather, the ability to engage in gains trading. Second, she examined bank holding companies, and the ability to manage earnings may be of only minor importance for banks in determining what portion of a portfolio to classify as AFS. Puschaver (1996) notes that a primary issue for investment classification for banks is the avoidance of unnecessary equity volatility. For banks, "better [capital] ratios accord management greater flexibility to conduct business (Puschaver, 1996, p. 35)." Thus, since unrealized holding gains and losses on AFS securities directly affect capital, the ability to absorb equity volatility (and not the desire to manage earnings through gains trading) may be the overriding criterion for AFS classification in the banking industry. Third, Beatty analyzed 1994 data on AFS classification, and her results may not be relevant today because of a FASB implementation guide issued in 1995. When entities first adopted SFAS No. 115 in 1994, investment classification decisions were often made without a full understanding of their consequences. The 1995 implementation guide clarified much of the classification confusion and allowed entities to make a one-time, penalty-free reclassification in 1995. These reclassifications were significant; for example, the 25 largest bank holding companies reclassified a third of their total investments from HTM to AFS. Thus, Beatty's analysis of 1994 investment classification decisions may be outdated. The current study overcomes the potential weaknesses of the Beatty study; the next section describes the methodology used to do so.

Methodology

In this study, we examined evidence of gains trading in the insurance industry only. The industries most affected by SFAS No. 115 are banking and insurance. As noted previously, banks may be greatly affected by the equity volatility caused by AFS classification, which may override desires to manage earnings through gains trading. Equity ratios and their volatility would be of less concern for insurance companies because the regulatory focus in the insurance industry tends be on cash reserves and liquidity. Thus, insurance companies may be more likely than banks to classify securities as AFS, which would provide insurance companies with greater opportunities for gains trading than banks.

The data in this study were obtained from Compact Disclosure. All insurance companies (i.e., those with SIC codes of 63) disclosing information on investments accounted for under SFAS No. 115 were included in the sample; this search procedure yielded 108 companies. To allow an examination of gains trading in 1995, selected 1994 and 1995 data were collected from the entities' financial statements and footnotes.

Ordinary least squares (OLS) regression

models were used to test the relationships between measures of gains trading and certain financial characteristics of the companies. The models used the following two surrogate measures of gains trading as dependent variables (each dependent variable was tested separately):

Net realized gains to AFS securities (GAINSONE) - The ratio of 1995 net realized gains (i.e., realized gains minus realized losses) to the total 1995 year-end amount of AFS securities. This ratio provides a relative measure of a company's investment trading. Higher ratios indicate more active gains trading.

Net realized gains to net unrealized gains (GAINSTWO) - The ratio of 1995 net realized gains (i.e., realized gains minus realized losses) to 1995 net unrealized holding gains (i.e., unrealized holding gains minus unrealized holding losses). This ratio measures the net gains that actually affected earnings in relation to the net gains that could have affected earnings. Higher ratios suggest more active gains trading.

The models tested the notion that companies needing income boosts would be more likely to use gains trading as a means of attaining desired earnings levels. Thus, the independent variables provided measures of a company's need to manage earnings. The three independent variables were as follows:

Return on assets (ROA) - The ratio of 1995 income before taxes and before gains or losses from sales of AFS securities to total assets. This ratio measures the current earnings level and, thus, the need for gains trading. Entities with lower ROAs would be more inclined to engage in gains trading to increase their earnings level.

Leverage (LEV) - The ratio of 1994 year-end debt to 1994 year-end assets. Prior research (e.g., Christie, 1990) suggests that leverage is related to earnings management. Entities with higher leverage pose greater risks to investors and creditors and, therefore, have more incentive to manage earnings to lessen the users' perceptions of firm risk.

Log of total assets (ASSETS) - The log of 1994 year-end total assets. This variable measures entity size.[2] Prior research (e.g., Guenther, 1994) indicates that size may affect the level of earnings management. For example, managers of large companies may face more intense pressure to perform than managers of small companies. To achieve expected performance levels, managers of larger companies may be more inclined to engage in gains trading.

Results

Two dependent variables were examined to increase the likelihood that an appropriate measure of gains trading was captured. To test the relationships between the three independent variables and the dependent variables at the most basic level, three simple OLS regression models were developed for each dependent variable. Table 1 provides summary statistics for these six

Table 1
Summary Statistics for Simple Regression Models

Dependent Variable	Model number	Independent variable	Parameter estimate	F ratio	Prob. > F
GAINSONE	one	ROA	-.0748	10.17	.002
GAINSONE	two	LEV	.0129	5.38	.022
GAINSONE	three	ASSETS	.0550	1.26	.265
GAINSTWO	four	ROA	-.0525	14.18	.000
GAINSTWO	five	LEV	.0067	4.00	.048
GAINSTWO	six	ASSETS	-.0168	.32	.570

models.

Both ROA and LEV were significantly related to the two dependent variables at the .05 level or better. The statistical significance and the signs of the coefficients for ROA and LEV provide evidence that gains trading is occurring under SFAS No. 115. The negative coefficient for ROA in model one indicates that companies with lower earnings (before considering gains and losses from selling AFS securities) have higher ratios of net realized gains to total AFS securities, which suggests that gains trading is occurring to boost income. A similar analogy can be made for model four.

The positive coefficient for LEV in model two indicates that companies with higher debt ratios (i.e., more risky entities) have higher ratios of net realized gains to total AFS securities. This relationship has intuitive appeal because more risky companies may be boosting earnings through gains trading to reduce perceived risks to the user. A similar analogy can be made for model five.

ASSETS proved to be statistically insignificant when tested against both dependent variables (i.e., see models three and six). This suggests that entity size is not related to the level of gains trading.

To evaluate the combined effects of the three independent variables, an OLS multiple regression model was developed for each of the two dependent variables. Even though ASSETS was statistically insignificant in the simple regression models, it was included in the multiple regression models because of the potential interaction effects it could have with the other variables. Table 2 presents summary statistics for the multiple regression models.

As expected, Table 2 shows that the significance of each variable declined in comparison to its significance in the corresponding simple regression models. This occurred because the explanatory power of individual variables overlaps in a multiple regression model causing each variable to be less significant than when viewed in isolation. Still, the two multiple regression models were significant overall with alpha levels of .020 and .002, respectively.

Table 2
Summary Statistics for Multiple Regression Models

Dependent Variable	Independent variable	Parameter estimate	t ratio	Prob. >t
GAINSONE	ROA	-.0688	-2.18	.031
	LEV	.0145	.17	.864
	ASSETS	.0200	.34	.732
Model F-ratio = 3.44; Probability > F = .020				
Dependent Variable	Independent variable	Parameter estimate	t ratio	Prob. > t
GAINSTWO	ROA	-.0523	-2.81	.006
	LEV	.0015	.31	.759
	ASSETS	-.0429	-1.30	.197
Model F-ratio = 5.34; Probability > F = .002				

Individually, ROA continued to be the strongest explanatory variable for both dependent variables and produced alpha levels of .031 and .006 in the two respective models. This demonstrates a strong correlation between the earnings level (before net realized gains) and the amount of gains trading. Both models produced negative coefficients for ROA; this inverse relationship appears logical. At lower levels of earnings, more gains trading is needed and more occurs; at higher levels of earnings, less gains trading is needed and less occurs.

LEV and ASSETS proved to be insignificant in both multiple regression models. This was not surprising for ASSETS because this size variable was insignificant when viewed in isolation in the simple regression models. However, LEV produced significant rela-tionships in the simple regression models but insignificant relationships in the multiple regression models. This probably occurred because ROA and LEV were moderately correlated. Since ROA was the stronger variable and contained some of the explanatory power in LEV, the leverage variable became statistically insignificant in the multiple regression models.[3]

Summary and Conclusion

With SFAS No. 115, the FASB moved a step closer to fair value accounting. Yet, the standard represents a compromise, especially with respect to accounting for and reporting gains and losses related to securities classified as AFS. Although AFS securities are reported on the balance sheet at fair value, unrealized holding gains and losses on these securities do not affect income but, rather, flow directly to owners' equity. Critics of SFAS No. 115 claim that this compromise invites gains trading and earnings management as AFS securities can be "cherry picked" and sold with the net realized gains affecting income. However, little empirical evidence exists indicating that gains trading actually occurs under SFAS No. 115.

This study provides strong evidence that, indeed, gains trading does occur under SFAS No. 115, at least with respect to the insurance industry. The implications of this finding are important for two reasons. First, financial statement users should be aware that gains trading and earnings management under SFAS No. 115 exist. Gains trading to achieve desired earnings levels does not necessarily imply unethical behavior by managers. However, when evaluating an entity's financial health, users need to be able to recognize the presence of gains trading. This can be accomplished by simply reviewing the footnotes to determine the amount of realized gains and losses occurring during the period and ascertaining how these gains and losses affect current earnings.

Second, the finding suggests that managerial decisions are affected, at in least in part, by accounting standards. FASB standards are not intended to affect operating decisions nor are they intended for use in molding a company's financial status. Yet, it appears that both of these are occurring under SFAS No. 115. Modifying SFAS No. 115 to require unrealized holding gains and losses on AFS securities to flow through income could effectively eliminate the potential for gains trading, but doing so would greatly increase the volatility of earnings from year to year as income would fluctuate based on changes in interest rates.

Suggestions for Future Research

Because SFAS No. 115 is a relatively new standard, the current study tested for gains trading using cross-sectional data for one year only (i.e., 1995). This was the only year for which data were available. As time passes, longitudinal data will become available allowing time-series analyses to be performed for individual entities. Using quarterly data would increase the number of periods available. Such analyses would allow researchers to determine characteristics of individual companies which are more prone to engage in gains trading.

This study demonstrates that earnings management appears to be occurring under SFAS No. 115. Yet, like most researchers operating under time, cost, and data availability constraints, our models did not contain all possible explanatory variables that prior research suggests may be related to earnings management. For example, the models in this study did not include variables measuring managers' income-based compensation or managers' levels of stock ownership. Future research could examine these variables.

As mentioned previously, gains trading can occur under SFAS No. 115 because unrealized holding gains and losses on AFS securities

do not flow through income but, rather, through owners' equity. The FASB currently has an Exposure Draft, *Reporting Comprehensive Income*, which would require an additional income number (i.e., comprehensive income). Comprehensive income would not replace traditional net income. The computation of comprehensive income could be shown on the bottom of the income statement or in a separate statement. Its purpose would be to remove from the equity section of the balance sheet the special income-like items that currently flow directly to equity. Instead of flowing directly to owners' equity, these special items would first flow through comprehensive income, which would be computed as follows:

Net income	$XXXX
Plus (minus) special items	XXXX
Comprehensive income	$XXXX

The special items for the period would then be carried to the equity section of the balance sheet and reported in an "accumulated other comprehensive income" account.

One of the special items that would affect comprehensive income would be unrealized holding gains and losses on AFS securities.[4] Thus, these unrealized holding gains and losses would no longer flow directly to equity, but they also would not affect net income. Realized gains and losses would continue to flow through net income; however, comprehensive income would be the same whether AFS securities are sold or held. If the Exposure Draft becomes a standard, will the inclusion of unrealized holding gains and losses in comprehensive income affect gains trading under SFAS No. 115? Future research could address this important question.

Endnotes

1. As an example of the significance of accounting for investments in the insurance industry, the median amount of investments to total assets for insurance companies in 1995 exceeded 51 percent.
2. Absolute asset size typically is not normally distributed; logging the asset variable normalizes the variable while maintaining the integrity of its explanatory power.
3. Collinearity among independent variables in business and economic studies is common. Although collinearity may cause the regression coefficients to vary widely from sample to sample, it generally does not inhibit a model's ability to provide a good fit so long as the collinearity is not extreme (Neter and Wasserman, 1974, p. 341).
4. The only other items affecting comprehensive income would be foreign currency translation adjustments under SFAS No. 52, any excess additional pension liability over unrecognized prior service cost under SFAS No. 87, and accounting for futures contracts under SFAS No. 80.

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