

THE EFFECT OF INSTITUTIONAL OWNERSHIP ON THE REPORTING OF CONSERVATIVE EARNINGS

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Abstract

Given the spate of financial reporting scandals and enactment of the Sarbanes-Oxley Act of 2002 following the stock market crash of 1999, we examine the role of institutional monitoring as it pertains to reporting conservatism. Using the Basu (1997) asymmetric timeliness models, we examine the relation between institutional ownership and the conservatism of reported earnings, as defined by the asymmetric timeliness measures. Our results indicate that larger institutional holdings are associated with a decrease in earnings conservatism. We attribute these findings in part to the incentives of large institutional investors to capitalize on private information obtained through their role as corporate monitors. As such, it may be unlikely that large investors would not encourage the timely reporting of bad news.

Keywords: ownership structure, earnings, reporting

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1. Introduction

The separation of equity ownership and control in modern corporations creates ample opportunities for management to conceal or delay the reporting of bad news. As evidenced by accounting scandals in the United States in late 1990s, lack of timely reporting of bad news can potentially mislead investors and result in loss of equity due to bad investment decisions. For instance, a recent report by Glass Lewis & Co. (2005) reports that the loss in market capitalization of 30 high profile scandals in the United States from 1997 to 2004 resulted in loss of capitalization of more than \$900 billion dollars. These scandals led to the passage of Sarbanes-Oxley Act in 2002, which now requires that publicly traded firms, among other things, have more controls to ensure the integrity of the reported financial information.

In this study, we explore this issue and focus on one aspect of financial reporting, i.e., the timeliness of the reporting of bad news relative to that of good news. Specifically, we examine whether the presence of large shareholders, i.e., institutional investors in the corporate structure leads to timely reporting of economic bad news. Consistent with Bushee (1998), we define institutional investors as large investors who presumably exercise discretion over the investment of others¹.

We focus on the timely reporting of bad news, i.e., conservatism² given its importance in corporate governance. Conservatism provides timely signals for investigating the existence of negative net present value projects (Watts 2003) which increases the likelihood that managers will abandon such projects. In the absence of the reporting of conservative earnings information, managers may have incentive to continue operating the negative net present value projects to avoid the reporting of losses (Ball 2001). Further, conservatism helps prevent excess payments to managers (Watts 2003). Empirical studies have documented the benefits of conservative reporting by showing that conservatism is associated with relatively lower cost of equity (Francis et al. 2004) and lower cost of debt (Ahmed et al. 2002).

In this study, we extend this line of research and examine the association between large investors and the timely reporting of bad news. Two possibilities exist with respect to the incentives of larger shareholders to encourage the timely reporting of bad news. Under the *active monitoring hypothesis*, it is believed that institutions are likely to actively manage their investment. Larger shareholders have the

in equity. These entities are required to file form 13f with the SEC to report their equity holdings. Entities such as brokerage houses and companies holding stocks for their own portfolio are not required to disclose their equity holdings.

² Consistent with Basu (1997), we measure conservatism by the asymmetric timeliness of reporting bad news to the markets relative to that of reporting good news.

¹ Following prior research (e.g., Bushee, 1998), we define institutional investors as entities such as bank trusts, insurance companies, mutual funds and pension funds that invest on behalf of others and manage at least \$100 million

opportunity, resources and ability to discipline and influence management (Cornett et al. 2006). Institutional monitoring can occur explicitly through corporate governance practices or implicitly through information gathering and correctly pricing the impact of managerial decisions (Bushee 1998). Although larger shareholders have the option of simply selling their shares and investing elsewhere, due to the magnitude of their holdings the shares cannot be sold without negatively impacting their investment. This is evidenced by the low turnover rate of Calpers and New York Retirement funds (which is 10% and 7% of their total equity respectively).³ Academic research has documented evidence consistent with active monitoring hypothesis and has found stock price performance, firm profitability (e.g., Brous and Kini, 1994; Opler and Sokobin, 1997) and the quality of earnings (e.g., Bushee, 1998; Chung et al., 2002; Jiambalvo et al., 2002; Cornett et al. 2006) to be associated with institutional ownership.

Proponents of the *private benefits hypothesis*, however, argue that institutional investors through close monitoring of the firm, gain access to private, value-relevant information and wish to exploit the informational advantage (Kim, 1993). For instance, Lee (2001) notes that smart investors may alter their trading strategies and may themselves trade on noise if they perceive profits in noise trading. If the absence of the timely reporting of bad news contributes to noise in publicly available information set, and if institutional investors perceive it to be advantageous to trade on such noise, then we can expect a negative relation between institutional ownership and conservatism. Supporting this notion, Perry and Williams (1994) find evidence of earnings management in anticipation of a management buyout. They further note that institutional ownership does not seem to impact management's propensity to manage earnings. Therefore, it is likely that institutional investors might not encourage the timely reporting of bad news and exploit the information asymmetry in the capital markets to their advantage. In such a case, there may be a negative relation between institutional ownership and conservatism. Prior research has examined the role of institutional investors in corporate governance by searching for evidence of the effect of monitoring on stock prices, firm profitability, and earnings management and by analyzing voting patterns of institutional investors. This study examines the issue of institutional monitoring from the perspective of the timeliness of the reporting of bad news which is likely to reduce the information asymmetry between informed and uninformed investors. To implement our study, we obtain a sample of publicly traded firms for the sample period 1992-2001 and examine the Basu (1997) models to investigate the association between institutional ownership and reporting conservatism. We document a negative and significant relation between

institutional ownership and conservatism. Overall, our study makes a contribution by demonstrating that the presence of informed investors in the corporate structure does not positively influence the timely reporting of bad news.

The remaining paper is organized as follows. In the next section we discuss the concept of conservatism, followed by a description of our methodological approach in Section 3. Our results are discussed in Section 4 and we present our conclusions in Section 5.

2. The Concept of Conservatism

The accounting literature has discussed two definitions of conservatism: conditional (news dependent or ex post) and unconditional (i.e., news independent or ex ante). Beaver and Ryan (2005) note that the unconditional definition of conservatism refers to accounting bias in reporting lower income. Thus, unconditional conservatism refers to the accounting choices that lead to the reporting of expenses early (such as depreciating an asset over a shorter period of time). In such cases, contemporaneous stock returns, or real income is unlikely to be correlated with accounting income.

Conditional conservatism, on the other hand, refers to the reporting of lower accounting income conditional on the firm experiencing contemporaneous economic losses. For example, asset impairments (which involve a reduction in current income) signal a corresponding economic loss. Thus, this definition captures the timely recognition of economic losses in accounting numbers. From a contracting perspective, as noted by Ball and Shivakumar (2005), conditional and unconditional conservatism are different concepts. Rational investors are likely to demand conservative accounting numbers to factor the information about economic losses in their decision model. Unconditional conservative numbers simply create noise in decision models. For instance, if an asset is depreciated over 10 years instead of 15 years, then investors are simply going to make an adjustment in their decision models, provided the bias is known. If the bias is not known then it creates noise in the information set. Ball and Shivakumar (2005, p. 91) note that "while unconditional conservatism seems inefficient or at best neutral in contracting, conditional conservatism (timely loss recognition) can enhance contracting efficiency". In this paper, we focus on conditional conservatism due to its importance in improving contracting efficiency.

3. Methodology

3.1 Sample Selection

Our study spans the 10-year period 1992-2001. For a given firm-year observation to be included in the study, information on earnings and stock returns must

³ See Gillan and Starks (2000)

be available from the COMPUSTAT or CRSP databases and information on institutional ownership must be available from the Compact Disclosure database. In order to mitigate the effect of outliers, we delete the top and bottom 1% of observations for all study variables. These procedures yield 13,240 firm-year observations.

3.2 Measurement of Conservatism and Model Development

Our first measure of conservatism uses the reverse regression methodology identified by Basu (1997) with annual earnings as the dependent variable.⁴ This measure has been used in several studies (e.g., Ball et al. 2000; Holthausen and Watts 2001; Basu et al. 2001a; Huijgen and Lubberink 2003; Ball et al. 2003). The model is based on the premise that stock prices reflect information from sources other than financial statements and stock prices lead earnings information (Ball and Brown 1968; Beaver et al. 1980; Kothari and Sloan 1992). Thus, a positive association between negative market returns (i.e., bad news) and earnings suggests more timely reporting of bad news relative to that of good news, i.e., earnings incorporates publicly available information conservatively. Consistent with prior research (e.g. Basu et al. 2001b), we use fiscal year returns in order to exclude the reaction to earnings information and include the information that the market knows *ex ante*. We use the following Basu (1997) model to test the level of earnings conservatism without regard to institutional ownership:

$$EARN_{it} = \beta_0 + \beta_1 RET_{it} + \beta_2 DRET_{it} + \beta_3 RET_{it} * DRET_{it} + \epsilon_{it} \quad (1)$$

where:

- $EARN_{it}$ = Earnings before extraordinary items for firm *i* in fiscal year *t* deflated by market value of equity at the beginning of the period;
- RET_{it} = fiscal year stock return;
- $DRET_{it}$ = Dichotomous variable set equal to one if $RET_{it} < 0$; else set equal to zero.

In the above model, β_1 captures the response of earnings to returns when returns are positive and $\beta_1 + \beta_3$ capture the response of earnings to returns when returns are negative. If $\beta_1 + \beta_3 > \beta_1$ (or $\beta_3 > 0$) then earnings are conservative. In other words, a positive and significant β_3 would indicate that the association between earnings and bad news is positive, and that earnings information reflects bad news more quickly

than good news. Basu (1997) refers to β_3 as the *asymmetric timeliness coefficient*.

In order to analyze the effect of institutional ownership on earnings conservatism, we modify Model 1 as follows:

$$EARN_{it} = \beta_0 + \beta_1 RET_{it} + \beta_2 DRET_{it} + \beta_3 RET_{it} * DRET_{it} + \beta_4 PIH_{it} + \beta_5 RET_{it} * DRET_{it} * PIH_{it} + \epsilon_{it} \quad (1a)$$

where PIH_{it} is the percentage of institutional holdings. $\beta_3 + \beta_5$ measures the impact of institutional ownership on conservatism. If institutions actively monitor corporations for the shared benefit of all investors, we would expect a positive and significant coefficient for β_5 , which would indicate that the incremental responsiveness of earnings to bad news is *increasing* in institutional ownership. Conversely, if the private benefits hypothesis applies, we would expect a negative and significant coefficient for β_5 , which would indicate that the incremental timeliness of earnings to bad news is *decreasing* in institutional ownership.

We also employ a second approach used by Basu (1997) in order to examine the time-series behavior of earnings changes. Specifically, Basu argues that bad news impacts earnings immediately but the effect does not persist, while good news takes longer to be reflected in earnings and is more likely to persist in future periods. In other words, a decrease in current earnings during bad news period is likely to reverse in the future. For example, consider a firm that takes a restructuring charge to write-off a physical asset whose future economic value to the firm has become questionable. This write-off will lower current earnings, while relieving future periods by lowering future depreciation charges related to the asset. Thus, *ceteris paribus*, we would expect the reporting of bad news (i.e., conservative earnings) to be associated with increased negative autocorrelation between current and future reported earnings. Good news, however, tends to be recognized over several periods. An increase in current earnings during good news period is less likely to result in a reversal of earnings in the following period. Therefore, we can expect a reversal of bad news but not good news. Consistent with conservatism arguments, prior research (e.g., Brooks and Buckmaster 1976; Elgers and Lo 1994; Basu 1997 and Fama and French 2000) indicates that negative earnings changes are more likely to reverse in the following period than positive earnings changes. Basu (1997) finds that the asymmetric timeliness of earnings in reflecting good and bad news results in differing degrees of persistence with the following model:

$$\Delta EARN_{it} = \beta_0 + \beta_1 \Delta EARN_{it-1} + \beta_2 \Delta EARN_{it-1} + \beta_3 \Delta EARN_{it-1} * \Delta EARN_{it-1} + \epsilon_{it} \quad (2)$$

⁴ Basu (1997, p.11) notes that in his model, which is based on reverse regression, "OLS standard errors and test statistics are better specified when the leading variable is specified as independent and the lagging variable as dependent".

where:

- ΔEARN_{it} = Change in earnings before extraordinary items for firm i in fiscal year t deflated by the market value of equity at the beginning of the year;
- DEARN = Dichotomous variable set equal to one if $\Delta\text{EARN} < 0$; else set equal to zero;

and all other variables as defined earlier.

In the above model, timely recognition of economic gains would suggest that these transitory gains would reverse in following periods and result in $\beta_2 < 0$. On the other hand, more timely recognition of economic losses would lead to $\beta_2 + \beta_3 < \beta_2$ (or $\beta_3 < 0$).

In order to assess the impact of institutional ownership on the asymmetric timeliness measure of earnings conservatism, Model (2) is modified as follows:⁵

$$\Delta\text{EARN}_{it} = \beta_0 + \beta_1\text{DEARN}_{i,t-1} + \beta_2\Delta\text{EARN}_{it-1} + \beta_3\Delta\text{EARN}_{it-1} * \text{DEARN}_{it-1} + \beta_4\text{PIH}_{it-1} + \beta_5\text{EARN}_{it-1} * \text{DEARN}_{it-1} * \text{PIH}_{it-1} + \varepsilon_{it} \quad (2a)$$

Again, if large institutional investors monitor corporations for the shared benefit of all investors, we would expect earnings conservatism to be increasing in institutional ownership and a negative and significant β_5 . However, if private benefits hypothesis dominates, we would expect conservatism to be decreasing in institutional ownership and a positive and significant β_5 .

4. Results

Variable definitions and descriptive statistics are provided in Tables 1 and 2, respectively. We report mean, median, and standard deviation for percentage of institutional ownership (PIH), annual stock return, and earnings levels and changes (both deflated by beginning market value of equity) and categorical variables for negative returns and earnings for the sample. The results show a mean (median) PIH for sample observations of approximately 46.4% (46.0%) years. Regression results for Models 1 and 1a (2 and 2a) are shown in Table 3(4). We present the expected signs for the variable coefficients, the coefficient values for the Basu models, and the variable coefficients for Basu models extended to reflect the impact of institutional ownership on conservatism.

From Table 3, the positive coefficient β_1 from Model 1, which captures the response of earnings to positive returns, is consistent with the results from Basu (1997). β_3 , which measures the incremental market reaction when returns are negative, is positive and significant. This indicates that bad news is

reported in a more timely manner than good news. The coefficients for β_1 and β_3 from Model 1a are similar to those of Model 1. In addition, the negative and significant $\beta_5 = -0.006$ indicates that the incremental response of earnings to bad news is decreasing in PIH. This finding implies a negative relation between institutional ownership and conservatism and supports the private benefits hypothesis.

The results from Model 2 and Model 2a are presented in Panel A of Table 3. The negative and significant sign for β_2 from the Model 2 implies a reversal of transitory gains in the following period. Also, β_3 , which indicates the incremental reversal of earnings for losses, is negative and significant. This indicates that economic losses are recognized in a more timely manner than are economic gains. These findings, which indicate that negative earnings changes are significantly less persistent than are positive earnings changes are consistent with Basu (1997). The results from Model 2a, which includes and interaction term for PIH and the asymmetric timeliness measure, show a positive and significant β_5 . This finding also suggests that conservatism decreases with institutional ownership and provides further support for the private benefits hypothesis.

5. Conclusion

In this study, we examine the relation between institutional ownership and conservatism in reported earnings. We examine the measures of conservatism from prior literature that define conservatism in terms of the relative timeliness of the reporting of bad news in earnings compared to that of good news and show that conservatism in earnings is negatively related to institutional ownership. Our results are consistent with the private benefits hypothesis, which postulates that institutional investors seek to exploit private information related to their investments, which may involve not encouraging managers to report bad news to the public on a timely basis.

Future research could examine whether the degree of conservatism is a function of the type of institutional investors. Further, researchers could also examine the impact of other governance mechanisms on the conservatism of earnings.

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⁵ We use PIH for year t-1 in this model, because it is the conservatism inherent in prior year earnings that is actually measured.

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Table 1. Definition of Variables

PIH	=	Percentage of common shares held by institutions;
EARN _{it}	=	earnings before extraordinary items for firm <i>i</i> in fiscal year <i>t</i> deflated by market value of equity at the beginning of the period;
RET _{it}	=	annual stock return;
DRET _{it}	=	dichotomous variable set equal to one if RET _{it} < 0; else set equal to zero;
ΔEARN _{it}	=	change in EARN for firm <i>i</i> in fiscal year <i>t</i> deflated by the market value of equity at the beginning of the year;
DEARN	=	dichotomous variable set equal to one if ΔEARN < 0; else set equal to zero;

TABLE 2. Descriptive Statistics
(n = 13,240)

Variable	Mean	Median	Std. Dev.
PIH	0.464	0.460	0.222
EARN	0.069	0.064	0.046
RET	0.086	0.035	0.429
DRET	0.457	0.000	0.498
ΔEARN	0.019	0.009	0.080
DEARN	0.290	0.000	0.456

Table 3. Regression Results

Model 1: $EARN_{it} = \beta_0 + \beta_1 RET_{it} + \beta_2 DRET_{it} + \beta_3 RET_{it} * DRET_{it} + \epsilon_{it}$

Model 1a: $EARN_{it} = \beta_0 + \beta_1 RET_{it} + \beta_2 DRET_{it} + \beta_3 RET_{it} * DRET_{it} + \beta_4 PIH_{it} + \beta_5 RET_{it} * DRET_{it} * PIH_{it} + \epsilon_{it}$

	Expected Sign	Model 1 (n = 13,240)	Model 1a (n = 13,240)
Intercept	+	0.070***	0.079***
RET _{it}	+	0.030***	0.030***
DRET _{it}	?	-0.002**	-0.003**
RET*DRET _{it}	+	0.016***	0.043***
PIH _{it}	?		-0.001***
RET*DRET _{it} *PIH	-		-0.006***
R-squared		0.115	0.120

*** Significant at the 0.01 level

** Significant at the 0.05 level

Table 4. Regression Results

Model 2: $\Delta EARN_{it} = \beta_0 + \beta_1 DEARN_{it} + \beta_2 \Delta EARN_{it-1} + \beta_3 \Delta EARN_{it-1} * DEARN_{it-1} + \epsilon_{it}$

Model 2a: $\Delta EARN_{it} = \beta_0 + \beta_1 DEARN_{it} + \beta_2 \Delta EARN_{it-1} + \beta_3 \Delta EARN_{it-1} * DEARN_{it-1} + \beta_3 PIH_{it-1} + \beta_4 \Delta EARN_{it-1} * DEARN_{it-1} * PIH_{it-1} + \epsilon_{it}$

	Expected Sign	Model 2 (n = 13,240)	Model 2a (n = 13,240)
Intercept	?	0.004***	0.003*
DEARN _{it}	?	-0.011***	-0.010***
ΔEARN _{it-1}	-	-0.031***	-0.031***
ΔEARN _{it-1} * DEARN _{it-1}	-	-0.600***	-0.716***
PIH _{it-1}	?		0.000
ΔEARN _{it-1} * DEARN _{it-1} * PIH _{it-1}	+		0.030***
R-squared		0.344	0.350

*** Significant at the 0.01 level

** Significant at the 0.05 level

* Significant at the 0.10 level