

The Effect of Monitoring by Outside Blockholders on Earnings Management

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This study examines two competing views concerning the effect of outside blockholders on earnings management. First, outside blockholders, with higher motivation and ability to monitor managers' actions than small shareholders, might reduce earnings management through their closer monitoring. Second, outside blockholders require a higher return from their investment and pose a bigger threat of intervention to the firm's management. They may increase managers' incentives to conduct income-increasing earnings management. This study tests the two competing views by examining the association between outside blockholder ownership and earnings management for NYSE firms. Our results indicate that outside blockholder ownership is positively associated with discretionary accruals for firms that face declining premanaged earnings. Thus, the evidence, consistent with the second view, suggests that outside blockholders are not effective monitors of income-increasing earnings management that is generally within the bounds of GAAP.

Introduction

Outside blockholders, who beneficially own at least 5 percent of a firm's outstanding common stocks (as defined by SEC Rule13d-3) but do not serve as executive officers or directors, are an important external mechanism to govern managers, especially for firms without significant managerial ownership (Shleifer and Vishny 1986, 1997). Dechow et al. (1996) suggests that outside blockholders are effective monitors of managers' earnings overstatements that violate GAAP. They caution that their results may not apply for earnings management that is within the bounds of GAAP. Jambalvo (1996) also suggests that the association may be different for within-GAAP earnings management. Thus, the purpose of this study is to

extend Dechow et al. (1996) by examining the association between outside blockholders and within-GAAP earnings management. This study can provide evidence on whether outside blockholders serve as effective monitors of within-GAAP earnings management.

With regard to the association between outside blockholders and earnings management, we consider two competing views. Outside blockholders have more incentives to monitor the actions of managers than do small outside shareholders because monitoring is more cost-efficient for outside blockholders (Jensen and Meckling 1976, Shleifer and Vishny 1986). First, small outside shareholders can sell their stocks quickly if they are not satisfied with the performance of managers. The situation differs for outside blockholders. Selling a large block of stocks often decreases stock prices. Outside blockholders generally have to adopt a long-term strategy. Consequently, monitoring managers produces more benefits for outside blockholders than for outside small shareholders. Second, outside shareholders that monitor managers' actions obtain the benefit of their monitoring only by the percentage of stocks owned by them but have to bear all the costs of their monitoring. A larger percentage of stockholdings by outside blockholders brings a bigger share of benefits produced by monitoring and hence a higher probability of covering the associated costs. Jensen and Meckling (1976) is one of the earliest studies that suggest monitoring by blockholders can be a way to reduce agency costs. Many subsequent studies have suggested that outside blockholders could effectively monitor management of firms (Koch 1981, Mikkelsen and Ruback 1985, Shleifer and Vishny 1986, and Barclay and Holderness 1991). The higher incentive of outside blockholders in monitoring managers' actions potentially reduces earnings management by restricting managers' discretion with financial reporting and/or mitigating their incentive to manage earnings. In this study, we refer to this as the *alleviating view*.

Outside blockholders also put more pressure on managers to report favorable financial performance and pose a bigger threat of intervention to perceived underperforming management than do small shareholders (McEachern 1975, Shleifer and Vishny 1986, Holderness and Sheehan 1988, and Barclay and Holderness 1991). Therefore, the existence of outside blockholders may create extra pressure for their firms' managers to engage in income-increasing earnings management. This study refers to this competing view as the *exacerbating view*. The existence of outside blockholders facilitates the success of proxy contests, hostile takeovers, and other mechanisms that oppose incumbent management. Examples of how outside blockholders may exert their interventions include initiating or supporting proxy proposals that restrict managements' decision rights, limit managers' ability to carry out policy, and, at the extreme, initiate takeovers and call for dismissal of management. Evidence in prior research supports this contention. Shleifer and Vishny (1986) suggest that large blocks of shares held by outside blockholders facilitate the success of hos-

tile takeovers and proxy contests because the more stocks a shareholder owns, the more the shareholder is willing to accept a takeover for a small increase of the firm's profits. Holderness and Sheehan (1988), Barclay and Holderness (1991), and Bethel et al. (1998) find that majority block trades lead to more management turnovers. Ely and Song (2000) find that blockholders pressure managers to take specific actions or call for dismissal of the managers whenever the company appears to be performing below its potential. Therefore, managers in firms with outside blockholders may feel more pressure to manage earnings than those in firms with diffuse ownership, especially when their firms experience declining or poor performance.

The two competing views are not mutually exclusive. How outside blockholders affect earnings management depends on which of the two conflicting factors would dominate, which is subsequently determined by the cost and benefit of the earnings management to outside blockholders. Earnings management may benefit current shareholders (Fields et al. 2001). Accounting discretion could help transfer wealth from creditors, suppliers, potential investors, and even government to current shareholders. Accounting discretion could also help a firm hide information from its competitors. However, accounting discretion provides managers with opportunities to manage earnings for their own benefit at the expense of current shareholders. Many studies find that managers use earnings management to increase their compensation and job security (e.g., Healy 1985; DeFond and Park 1997). Outside blockholders might trade the cost and the benefit when making decisions related to financial reporting discretion allowed for managers, which affects their motivation and ability to monitor managers' earnings management.

For earnings management that violates GAAP, we contend that the cost is more likely to be *higher* than the benefit; hence, the alleviating factor tends to dominate. As discussed by Jiambalvo (1996), earnings management that violates GAAP (non-GAAP) generally imposes a higher cost than within-GAAP earnings management when it is revealed. Core (1995) also indicates that litigations due to GAAP violations substantially damage the benefit of shareholders. Dechow et al. (1996) report an average 9 percent decline in stock prices when a firm's GAAP violations that are subject to enforcement actions of the SEC are revealed to the market. Thus, avoiding GAAP violations is generally in the best interest of current shareholders. Outside blockholders should have strong incentives to reduce earnings management that violates GAAP. The alleviating view can better explain the relationship between outside blockholders and earnings management. Consistent with this prediction, Dechow et al. (1996) provide evidence that outside blockholder ownership is negatively associated with earnings overstatements that violate GAAP.

For earnings management that is within the bounds of GAAP, however, we argue that benefits are greater than costs and hence the exacerbating factor is more likely to dominate. Within-GAAP earnings management is less likely to subject the firms to litigation as it is legal if managers can provide reasonable economic justifi-

cation for such earnings management. Thus, within-GAAP earnings management is less costly in the sense of legal risk for current shareholders. In addition, most firms do not restrict managers' accounting discretion in their compensation contracts of management and debt contracts but only require, implicitly or explicitly, that managers use accounting methods consistent with GAAP (Christine and Zimmerman, 1994). This indicates that equity or debt claim holders (i.e., shareholders or creditors) consider elimination of within-GAAP accounting discretion not to be cost-efficient. Within-GAAP earnings management should partially be expected by claim holders and, consequently, be price protected to some extent. When within-GAAP earnings management is detected by the claim holders, it should cause less of a decline in the prices of debt and equity claims than earnings management that violates GAAP. In short, outside blockholders should have significantly less incentive to monitor within-GAAP earnings management than to monitor earnings management that violates GAAP. Due to more pressure from outside blockholders to report favorable performance and their lower incentive to monitor it, the exacerbating view may better explain the association between outside blockholders and within-GAAP earnings management. Thus, we expect a positive association between outside blockholder ownership and earnings management that is within GAAP.

Consistent with our expectation, we find that outside blockholders exacerbate managers' upward earnings management when their firms experience declining pre-managed performance. The results suggest that the existence of outside blockholders increases managers' incentive to manage earnings to obscure declining performance. This study may be relevant to outside blockholders. Our evidence suggests that outside blockholders' focusing on performance in their monitoring might exert extra pressure on managers to manage earnings upward. The evidence also may have implications for decisions of regulators and standard setters. In situations where large managerial ownership is not feasible or optimal, which is not unusual in modern corporate America, the existence of outside blockholders is critical to the effectiveness of corporate governance (Davis and Steil, 2001; Shleifer and Vishny, 1986). How outside blockholders affect earnings management might help regulators and standard setters to make related decisions. Such decisions may include considerations regarding mechanisms shareholders can use to monitor managers, the complexity and flexibility of accountings standards, and regulations with regard to the fiduciary responsibility of institutional investors concerning financial reporting.

Contribution to the Literature

Given that the separation of ownership and management is among the most important forces driving earnings management, it is not surprising to find a rich body of early studies investigating the association between ownership structure and earnings management (e.g., Smith, 1976; Salamon and Smith, 1979; Koch, 1981; Dhaliwal et al. 1982; Amihud et al. 1983; DeFond and Jiambalvo, 1991). These early

studies, based on agency theory, generally find that owner-controlled firms that have blockholders are less likely to manage earnings than are management-controlled firms that have diffuse ownership structure.

Dempsey et al. (1993) extend the early studies by further dividing the owner-controlled firms into two types: (1) owner-managed firms in which managers own substantial blocks of the firms' outstanding stocks (i.e., the blockholders are insiders), and (2) external-controlled-firms in which one or more outside blockholders own a substantial block of the firm's stocks while the managers do not substantially own the firm's stocks (i.e., the blockholders are outsiders). Dempsey et al. find that owner-managed firms are less likely to manage earnings upward through extraordinary items than are management-controlled firms and externally-controlled firms, but the latter two types of firms do not significantly differ from each other in this respect. Their study, which discriminates insider blockholders from outsider blockholders, suggests that large ownership by management is the underlying factor that reduces earnings management. The existence of outside blockholders does not seem to significantly affect earnings management. Consistent with Dempsey et al. (1993), Warfield et al. (1995) also provide evidence that managerial ownership is negatively related to the magnitude of earnings management. Extending prior research, the study by Dechow et al. (1996) finds that outside blockholder ownership is negatively associated with earnings overstatements that violate GAAP. Cheng and Reitenga (2003) find that the existence of active institutional blockholders is negatively associated with earnings management.

Our study extends the literature in two important respects. First, while Dechow et al. (1996) examines the association between outside blockholders and earnings management that violates GAAP, this study extends it by examining the association between outside blockholder ownership and within-GAAP earnings management. Dechow et al. (1996) focus on firms that were charged by the SEC due to earnings overstatements that violate GAAP. This study uses NYSE-listed US firms as the sample firms. A small percentage of the NYSE firms were charged by the SEC with GAAP violations, and the firms that have extreme discretionary accruals are excluded from our sample. Thus, earnings management in this study refers to accounting practices that are within the bounds of GAAP. Cheng and Reitenga (2003) examine the association between active institutional blockholder ownership and within-GAAP earnings management for S&P 500 manufacturing firms. We focus our examination on NYSE firms in which board directors and top executives hold less than 5 percent of outstanding common stocks (referred to as *nonowner-managed firms* later). Focusing on nonowner-managed firms may increase the power of tests for the two competing views. Monitoring of outside blockholders is more important for nonowner-managed firms to constrain opportunistic actions of management because the interests of executives and directors are less aligned with those of shareholders for these firms. The alleviating effect of outside blockholders on

earnings management may be easier to detect. Outside blockholders also pose a bigger threat of intervention for managers in nonowner-managed firms than for managers in firms whose top executives or directors hold a large percentage of shares. The exacerbating effect of outside blockholders on earnings management also may be easier to detect. In addition, focusing on nonowner-managed firms addresses the potential confounding effect of managerial ownership which may be positively correlated with outside blockholder ownership.

Second, we extend Dempsey et al. (1993) by reexamining the effect of outside blockholders on earnings management. While the study by Dempsey et al. (1993) focuses on a particular type of accounting choice (i.e., extraordinary item reporting), our study examines earnings management at an aggregate level by using discretionary accounting accruals. The examination of a single accounting item might reduce the power of statistical tests because managers usually have a variety of methods available to manage earnings and some of the methods are more difficult to detect by outsiders than are extraordinary items. Aggregate discretionary accounting accruals are larger in magnitude, especially when multiple specific accounting choices affect the income in the same direction (Balsam 1998). The use of aggregate discretionary accounting accruals may increase the power of the tests and the effect of outside blockholders on earnings management may be more easily detected.

Additionally, our study identifies a context in which managers have a particular incentive to manage earnings. Without identifying a specific context, Dempsey et al. (1993) assume that managers generally have incentives to report extraordinary items as one way to increase earnings. When extraordinary items are used by managers to decrease income, such earnings management is viewed as statistical noise by Dempsey et al. (1993). This lack of a specific context might affect the power of the tests to detect the effect of outside blockholders on earnings management. Without certain incentives, managers might not engage in earnings management at all, and with different incentives, managers might manipulate earnings in opposite directions, either upward or downward. For example, managers in firms under import relief investigation have incentives to manage earnings downward (Jones 1991), while managers in underperforming firms have incentives to manage earnings upward (DeFond and Park, 1997; Gaver and Paterson, 2001). By focusing our examination on the firms that experience declining (premanaged) financial performance, we identify a context in which managers of the firms have motivations to manage earnings upward and hence the effect of outside blockholders on managers' earnings management may be more likely to be detected.

Hypotheses

Hypothesis 1 states that managers of firms with declining premanaged earnings manage earnings upward. Hypothesis 2a states that the existence of outside blockholders alleviates managers' earnings management to hide declining preman-

aged earnings. Hypothesis 2b states that the existence of outside blockholders exacerbates managers' earnings management to hide declining premanaged earnings. We use a pre-specified percentage of ownership (i.e., 5 percent) and a dummy variable to classify the firms into two categories: those with and without outside blockholders. It seems arbitrary to use a single level of ownership for classifying the firms. Therefore, hypothesis 3a states that there is a negative association between the percentage of outstanding shares owned by all outside blockholders and managers' earnings management to hide declining premanaged earnings. Hypothesis 3b states that there is a positive association between the percentage of outstanding shares owned by all outside blockholders and managers' earnings management to hide declining premanaged earnings. The specific hypotheses are as follows.

- H₁ : Firms with declining premanaged earnings have higher earnings management than other firms.
- H_{2a} : The existence of outside blockholders alleviates managers' upward earnings management to hide declining premanaged earnings. This is the *alleviating* view.
- H_{2b} : The existence of outside blockholders exacerbates managers' upward earnings management to hide declining premanaged earnings. This is the *exacerbating* view.
- H_{3a} : The percentage of stocks owned by all outside blockholders is *negatively* associated with managers' upward earnings management to hide declining premanaged earnings. This is the *alleviating* view.
- H_{3b} : The percentage of stocks owned by all outside blockholders is *positively* associated with managers' earnings management to hide declining premanaged earnings. This is the *exacerbating* view.

Definitions of the Terms

Outside blockholders are defined as those shareholders who beneficially own at least 5 percent of a firm's outstanding common stocks while they serve as neither the firms' executive officers nor on the board directors.

Earnings management is a controversial concept for accounting researchers. We use Schipper's (1989) definition: "a purposeful intervention in the external financial reporting process, with the intent of obtaining some private gain (as opposed to, say, merely facilitating the neutral operation of the process)." Consistent with this definition, earnings management in this paper mainly refers to the accounting practices that are within the bounds of GAAP. We measure earnings management as the discretionary accruals estimated using the cross-sectional modified Jones model (Jones, 1991 and Dechow et al., 1995) by year and industry.

Premanaged earnings are defined as accounting earnings before earnings management. Declining premanaged earnings refer to the situation in which premanaged earnings for the current year are lower than reported earnings of the prior year.

Methods and Results

Data Source and Sample

We collect ownership data from Compact Disclosure. All other data are collected from Compustat. We use ownership data on Compact Disclosure as of June 30 for 1994 and 1996, May 31 for 1995, 1997, 1998, and 1999, and April 1 for 2000, 2001, 2002, and 2003. Ownership structure is relatively stable for short periods. Therefore, ownership data being from different months for respective years are not a limitation. Our testing period is from 1994 to 2003 to cover both up and down market periods.

Compustat Active and Research Datasets are the source of our initial sample of firms. We identify 2,167 non-financial, non-utility, U.S. incorporated firms listed on NYSE by searching these databases. We exclude the financial and utility firms because they are heavily regulated and their earnings management practices may differ from those of less-regulated firms. The exclusion of non-U.S. firms is to rule out the effects of country-specific factors. Ten years (from 1994 to 2003) of cross-sectional data are pooled to test our hypotheses. We exclude the firm-year observations that do not have sufficient data to estimate the modified Jones model from our sample. Consistent with prior research, we also delete all firm-year observations that have fewer than 10 observations in any two-digit SIC industry code in any given year (Kothari et al., 2003). These procedures produce 11,538 firm-year observations for estimating discretionary accruals by each industry (two-digit SIC code) and each year.

To test our hypotheses, we exclude 2,955 firm-year observations with missing values in Compact Disclosure. Then we exclude 2,647 firm-year observations with ownership by top officers and board directors equal to or more than 5 percent from our sample. This procedure leaves us only the nonowner-managed firms in which the insiders do not own a substantial share of the firms' stocks. These nonowner-managed firms are the subsample of our research interest. We exclude 38 firm-year observations that have missing values for the incentive and control variables. We also exclude 156 firms with negative book value of common equity (similar to Collins et al. 1997).¹ Following DeFond and Park (1997), we also trim our sample of 267 firm-year observations with discretionary accruals, non-discretionary accruals, and operating cash flows scaled by lagged total assets in the extreme highest and lowest 1 percent of the distribution. After deleting observations for the previous reasons, we have 5,475 firm-year observations for testing our hypotheses. Our sample consists of the following observations for each sample year:

¹ Our results remain essentially the same when we include the firm-observations with negative book values of common equity in our regressions, except that the coefficients of market-to-book ratios become less significant.

Year	Observations
1994	315
1995	376
1996	472
1997	500
1998	706
1999	687
2000	616
2001	555
2002	527
2003	721
Total	5475

We report the descriptive statistics of the sample firm-year observations in Table 1 and the correlation matrix for the variables in Table 2. The mean of outside blockholder ownership is 36.4 percent, while the median is 31.9 percent. The distribution of outside blockholder ownership is not significantly skewed. No Pearson correlation coefficients among independent and control variables are extremely large, with the largest value of 0.4110 (Table 2). According to Kennedy (1985) and Neter et al. (1990), multicollinearity may unduly influence the OLS estimates if the maximum Pearson correlation coefficient is higher than 0.75. Thus, multicollinearity should not be a big concern.

Table 1—Descriptive Statistics for the Variables in Equations (2), (3), and (4) (n = 5475)

Variables	DAC _{it}	CHPREM _{it}	BLOCHP _{it}	DEBT _{it}	SIZE _{it}	GROWTH _{it}	SCFO _{it}
MEAN	-0.003	0.010	0.364	0.261	7.394	3.573	0.117
SD	0.055	0.078	0.265	0.158	1.675	7.348	0.075
MINIMUM	-0.214	-1.232	0.000	0.000	2.286	0.080	-0.088
1ST QUART	-0.032	-0.027	0.160	0.148	6.224	1.463	0.068
MEDIAN	-0.002	0.006	0.319	0.259	7.296	2.271	0.110
3RD QUART	0.028	0.044	0.527	0.362	8.471	3.625	0.158
MAXIMUM	0.197	1.353	0.999	0.890	12.616	231.660	0.393

DAC_{it} is discretionary accruals estimated from the modified Jones model by each industry and each year *t*. CHPREM_{it} is the change of current-year premanaged earnings over last-year reported earnings scaled by lagged total assets (PREM_{it}-IB_{it-1}/AT_{it-1}). Premanaged earnings (PREM_{it}) are defined as income before extraordinary items and discontinued operations scaled by lagged total assets minus discretionary accruals estimated from the modified Jones model (IB_{it}/AT_{it-1} - DAC_{it}). BLOCHP_{it} is the percent of equity shares held by all outside 5 percent beneficial blockholders. SIZE_{it} is measured by the natural log of the firm's market value of equity. DEBT_{it} is measured by the ratio of total debts to total assets. GROWTH_{it} is measured by the market-to-book ratio for common equity. SCFO_{it} is operating cash flows scaled by lagged total assets. The sample firm-year observations are from 1994 through 2003

Table 3 reports the distribution of firm-year observations for outside blockholder ownership. Of the 5,475 sample firm-year observations, 559 (10.2 percent) don't have any 5 percent outside blockholders, 1,514 (27.7 percent) have combined ownership by their 5 percent outside blockholders equaling 50 percent or more, and 3,750 (68.5 percent) have combined ownership by their 5 percent outside

blockholders equal to at least 20 percent. The distribution of outside blockholder ownership for the subsample of firms with declining (premanaged) performance (2,477) is similar to the distribution for the full sample (5475) (Table 3). The distribution by industry (not reported) for the subsample firms with declining (premanaged) performance is also similar to the distribution for the full sample firms.

Table 2—Pearson Correlation Matrix for the Variables in Equations (2) - (4) (n = 5,475)

	DAC _{it}	CHPREM _{it}	BLOCHP _{it}	DEBT _{it}	SIZE _{it}	GROWTH _{it}
CHPREM _{it} (P-VALUE)	-0.5275 (0.0000)					
BLOCHP _{it}	0.0058 (0.6676)	-0.0104 (0.4419)				
DEBT _{it}	-0.0057 (0.6719)	-0.0368 (0.0064)	0.0220 (0.1035)			
SIZE _{it}	0.0091 (0.4990)	0.0304 (0.0243)	-0.3487 (0.0000)	-0.0485 (0.0003)		
GROWTH _{it}	-0.0024 (0.8572)	0.0455 (0.0008)	-0.0373 (0.0057)	0.1080 (0.0000)	0.2043 (0.0000)	
SCFO _{it}	-0.3371 (0.0000)	0.4110 (0.0000)	-0.0844 (0.0000)	-0.2168 (0.0000)	0.2237 (0.0000)	0.1606 (0.0000)

DAC_{it} is discretionary accruals estimated from the modified Jones model by each industry and each year *t*. CHPREM_{it} is the change of current-year premanaged earnings over last-year reported earnings scaled by lagged total assets (PREM_{it}-IB_{it-1}/AT_{it-1}). Premanaged earnings (PREM_{it}) are defined as income before extraordinary items and discontinued operations scaled by lagged total assets minus discretionary accruals estimated from the modified Jones model (IB_{it}/AT_{it-1} - DAC_{it}). BLOCHP_{it} is the percent of equity shares held by all outside 5 percent beneficial blockholders. SIZE_{it} is measured by the natural log of the firm's market value of equity. DEBT_{it} is measured by the ratio of total debts to total assets. GROWTH_{it} is measured by the market to book ratio for common equity. SCFO_{it} is operating cash flows scaled by lagged total assets. The sample firm-year observations are from 1994 through 2003

Estimation of Cross-Sectional Modified Jones Model

The model proposed by Jones (1991) and modified by Dechow et al. (1995), the modified Jones model, frequently is used in studies to estimate discretionary accruals. This model is considered to be one of the most powerful accrual models to detect earnings management in the literature, even though it still estimates discretionary accruals with considerable imprecision (Dechow et al., 1995; Guay et al., 1996). The modified Jones model divides total accruals (TAC) into two types: discretionary accruals (DAC) and nondiscretionary accruals (NDAC). The model assumes that accruals caused by cash revenue changes and expenditures on property, plant and equipment are nondiscretionary. We use the cross-sectional modified Jones model

and OLS to estimate nondiscretionary accruals and discretionary accruals by each industry and each year. The modified Jones model is as follows:

$$\begin{aligned} TAC_{it}/AT_{it-1} = & \beta_0(1/AT_{it-1}) + \beta_1[(\Delta REV_{it} - \Delta RECT_{it})/AT_{it-1}] \\ & + \beta_2(PPE_{it}/AT_{it-1}) + \varepsilon_{it} \end{aligned} \quad (1)$$

where TAC_{it} is total accruals, which is measured as income before extraordinary items and discontinued operations (IB_{it}) less operating cash flows CFO_{it} ($OANCF_{it} - IDOC_{it}$) (Collins and Hribar, 1999); AT_{it-1} is total assets (AT) of the prior year; ΔREV_{it} is change in revenue (SALE); $\Delta RECT_{it}$ is change in accounts receivable (RECT); and PPE_{it} is gross property, plant, and equipment (PPEGT). The $(\Delta REV_{it} - \Delta RECT_{it})$ term controls for the effect of cash sales; the PPE_{it} term controls for normal levels of depreciation expense and related deferred tax accruals; and the AT_{it-1} deflator controls for potential heteroskedasticity. ε_{it} is the error term for firm i and year t . Compustat data item mnemonics are indicated parenthetically.

Table 3—The Distribution of Outside Blockholder Ownership (BLOCHP_{it})

Outside Blockholder Ownership Percent	Number (Percent) of Firm-Year Observations	Number (Percent) of Firm-Year Observations with Negative CHPREM _{it}
0—100	5475 (100%)	2477 (100%)
$0 \leq BLOCHP_{it} < 5\%$	559 (10.2%)	214 (8.6%)
$5\% \leq BLOCHP_{it} < 10\%$	359 (6.6%)	155 (6.2%)
$10\% \leq BLOCHP_{it} < 20\%$	807 (14.7%)	383 (15.5%)
$20\% \leq BLOCHP_{it} < 50\%$	2236 (40.8%)	1032 (41.7%)
$50\% \leq BLOCHP_{it}$	1514 (27.7%)	693 (28.0%)

BLOCHP_{it} is the percent of equity shares held by all outside 5 percent beneficial blockholders for firm i and year t . CHPREM_{it} is the change of current-year premanaged earnings over last-year reported earnings scaled by lagged total assets ($PREM_{it} - IB_{it-1}/AT_{it-1}$). Premanaged earnings ($PREM_{it}$) are defined as income before extraordinary items and discontinued operations scaled by lagged total assets minus discretionary accruals estimated from the modified Jones model ($IB_{it}/AT_{it-1} - DAC_{it}$).

We measure discretionary accruals (DAC_{it}), a proxy for earnings management, by the residuals (ε_{it}). The discretionary accruals are positive if managers use discretionary accruals to increase reported income numbers. Following prior research, we estimate the modified Jones model separately for each industry and each sample year. The results from estimating the modified Jones model (not reported) are generally consistent with prior research (Jones 1991 and Heninger 2001). We use a cross-sectional modified Jones model for the following reasons: (1) A time series model requires data over a specified number of time periods, which produces obvious survivorship biases; and (2) Subramanyam (1996) finds that the cross-sectional Jones model and modified Jones model are superior to their time-series versions in terms of specification and sample observations available.

Tests of Hypotheses

We measure premanaged earnings ($PREM_{it}$) as current-year reported income before extraordinary items and discontinued operations (IB_{it}) scaled by total assets lagged one year (AT_{it-1}) less discretionary accruals (DAC_{it}) estimated from the modified Jones model (i.e., $PREM_{it} = (IB_{it}/AT_{it-1}) - DAC_{it}$). We measure the change of premanaged earnings ($CHPREM_{it}$) as premanaged earnings of firm i in year t ($PREM_{it}$) minus reported earnings of year $t-1$ (IB_{it-1}/AT_{it-1} , i.e., $CHPREM_{it} = PREM_{it} - IB_{it-1}/AT_{it-1}$). DeFond and Jambalvo (1991) refer to this measure ($CHPREM_{it}$) as earnings growth. If the change of premanaged earnings (earnings growth) of firm i in year t ($CHPREM_{it}$) is negative, we identify firm i as experiencing declining (premanaged) financial performance in year t ; hence, the firm has incentives to manage earnings upward.

Dechow et al. (1995) indicate that the modified Jones model tends to bias estimated discretionary accruals for firms with extreme operating cash flows (both positive and negative). To control for this measurement problem, the level of operating cash flows scaled by lagged total assets (SCFO) is included as a control variable in our regression models. We include firm size and leverage as control variables because prior research (DeFond and Park, 1997) indicates they are associated with discretionary accruals. We include growth as another control variable because evidence indicates that long-term earnings growth is associated with estimated discretionary accruals (McNichols, 2000).

To test hypothesis 1, we estimate the following pooled regression model using OLS:

$$DAC_{it} = \beta_0 + \beta_1 D(CHPREM_{it}) + \beta_2 SIZE_{it} + \beta_3 DEBT_{it} + \beta_4 GROWTH_{it} + \beta_5 SCFO_{it} + \varepsilon_{it} \quad (2)$$

where:

DAC_{it} = The value of discretionary accruals estimated from the modified Jones model by each industry and each year from 1994 through 1999;

$D(CHPREM_{it})$ = A dummy variable defined as 1 when $CHPREM_{it}$ is negative and 0 otherwise;

$CHPREM_{it}$ = The change of premanaged earnings, defined as premanaged earnings for firm i , year t , less reported income before extraordinary items and discontinued operations for year $t-1$ scaled by lagged total assets (i.e., $CHPREM_{it} = PREM_{it} - IB_{it-1}/AT_{it-1}$).

$PREM_{it}$ = $IB_{it}/AT_{it-1} - DAC_{it}$;

IB_{it} = Current year income before extraordinary items and discontinued operations (IB);

AT_{it-1} = Total assets of the previous year (AT);

- SIZE_{it} = Measured by natural log of market value (MKVALF) of firm i's outstanding stocks at the end of fiscal year t;
- DEBT_{it} = Leverage, defined as total debts (DT) divided by total assets (AT) for firm i at the end of fiscal year t;
- GROWTH_{it} = Measured by market-to-book value ratio of equity (MKBKF) for firm i at the end of fiscal year t;
- SCFO_{it} = Measured by cash flows from operating activities (OANCF-XIDOC) scaled by lagged total assets for firm i and fiscal year t; and
- ε_{it} = The regression residual for firm i and fiscal year t.

Table 4 reports the OLS regression results. The coefficient of D(CHPREM_{it}) is significantly positive at the 1 percent level (t-statistic is 34.34, Table 4). This indicates that firms with declining premanaged earnings (negative growth of premanaged earnings) report significantly higher discretionary accruals than firms without declining premanaged earnings. The evidence is consistent with previous findings that firms with declining performance tend to manage earnings upward (e.g., DeFond and Jambalvo, 1991; Bushee, 1998). The intercept coefficient β_0 is significantly negative at 1 percent (t-statistic is -5.27, Table 4). This suggests that our sample firms with positive earnings growth have an incentive to manage earnings downward. This is consistent with prior research that suggests that firms with extremely good performance tend to manage earnings downward. The control variables are significant, and the signs are consistent with those reported in prior research (Dechow et al., 1995; DeFond and Park, 1997; and McNichols, 2000).

Table 4—Regression of Discretionary Accruals on Dummy Variable for Negative Change of Premanaged Earnings (N = 5475)

Parameters							
$DAC_{it} = \beta_0 + \beta_1 D(CHPREM_{it}) + \beta_2 SIZE_{it} + \beta_3 DEBT_{it} + \beta_4 GROWTH_{it} + \beta_5 SCFO_{it} + \varepsilon_{it}$							
β_0	β_1	β_2	β_3	β_4	β_5	Adj. R ² %	F (sig. level)
-0.0176*** (-5.27)	0.0469*** (34.34)	0.0022*** (5.69)	-0.0222*** (-5.38)	0.0003*** (3.31)	-0.1569*** (-16.37)	28.39	434.94 (0.0064)

DAC_{it} is discretionary accruals estimated from the modified Jones model by each industry and each year t. CHPREM_{it} is the change of current-year premanaged earnings over last-year reported earnings scaled by lagged total assets (PREM_{it}-IB_{it-1}/AT_{it-1}). Premanaged earnings (PREM_{it}) are defined as income before extraordinary items and discontinued operations scaled by lagged total assets minus discretionary accruals estimated from the modified Jones model (IB_{it}/AT_{it-1} - DAC_{it}). D(CHPREM_{it}) is a dummy variable equal to 1 if CHPREM_{it} < 0 and other equal to 0. SIZE_{it} is measured by the natural log of the firm's market value of equity. DEBT_{it} is measured by the ratio of total debts to total assets. GROWTH_{it} is measured by the market to book ratio for common equity. SCFO_{it} is operating cash flows (CFO) scaled by lagged total assets. Parameter estimates and t-statistics (in parentheses) are presented for the regression

*** Designates statistical significance at the 0.01 level, two-tailed tests, respectively

The mean of DAC for firms with declining premanaged earnings is 0.0272, and the median is 0.0247. A one sample t-test indicates the mean of DAC (i.e., 0.0272)

for firms with declining premanaged earnings is significantly greater than 0 ($t = 27.36$, $p < 0.001$, two tailed). These results (not reported in the tables) suggest that firms with declining premanaged earnings on average report positive discretionary accruals close to 3 percent of lagged total assets to manage earnings upward. The median net income before extraordinary items for Compustat firms is 3.8 percent of lagged total assets for the period of 1988 to 1998 (McNichols, 2000). Thus, this magnitude of discretionary accruals is material. Among 2,477 firms with declining premanaged earnings, 1,918 (77.4 percent) firms have positive discretionary accruals. Among the 2,998 other firms (those with either no change in premanaged earnings or increasing premanaged earnings), only 721 (24.1 percent) firms have positive discretionary accruals. A Pearson χ^2 -test shows that firms with declining premanaged earnings have significantly higher frequency to report positive discretionary accruals (two-sided asymptotical significance level is lower than 0.001). All these results strongly support the hypothesis that firms experiencing declining financial performance have the tendency to manipulate earnings upward by reporting positive discretionary accruals.

To test hypothesis 2a and hypothesis 2b, we estimate the following pooled OLS regression model:

$$\begin{aligned} \text{DAC}_{it} = & \beta_0 + \beta_1 \text{D(ChPREM}_{it}) + \beta_2 \text{DB5}_{it} \\ & + \beta_3 \text{D(ChPREM}_{it}) * \text{DB5}_{it} + \beta_4 \text{SIZE}_{it} + \beta_5 \text{DEBT}_{it} \\ & + \beta_6 \text{GROWTH}_{it} + \beta_7 \text{SCFO}_{it} + \varepsilon_{it} \end{aligned} \quad (3)$$

A dummy variable, DB5_{it} , is used to proxy the existence of 5 percent outside blockholders for a firm. DB5_{it} equals 1 if the firm has at least one outside large shareholder who beneficially holds 5 percent or more of the firm's stocks; it equals 0 if the firm does not have any 5 percent outside blockholders. For the definitions of the other variables, refer to Equation (2). The coefficient of the interaction term $\text{D(ChPREM}_{it}) * \text{DB5}_{it}$ indicates the extent to which the existence of outside blockholders affects the tendency of firms managing earnings upward to hide declining financial performance.

Table 5 reports the results of estimating regression Equation (3). The overall model is highly significant with an F statistic of 312.02 and an adjusted R-squared value of 28.46 percent ($p = 0.0064$). The R-squared value is consistent with the prior studies (e.g., DeFond and Park, 1997). The coefficient of DB5_{it} , β_2 , is not significantly different from zero. This result suggests that the existence of outside blockholders does not significantly affect earnings management for the sample firms with zero or positive premanaged earnings growth. This result changes, however, when we focus on the subsample of firms with declining premanaged earnings (i.e., $\text{ChPREM}_{it} < 0$). The coefficient of the interaction term $\text{D(ChPREM}_{it}) * \text{DB5}_{it}$, β_3 , in Equation (3), measures the *marginal* effect of outside blockholders on the discretionary accruals with declining premanaged performance. β_3 is positive and significant

($t = 2.70$) at the 1 percent level (Table 5). Consistent with hypothesis 2b, this result indicates that the existence of outside blockholders exacerbates firms' upward earnings management to hide declining premanaged performance, while controlling for several confounding factors.

Table 5—Regression of Discretionary Accruals on Change of Premanaged Earnings and the Existence of 5 percent Outside Blockholders (N = 5475)

$$DAC_{it} = \beta_0 + \beta_1 D(CHPREM_{it}) + \beta_2 DB5_{it} + \beta_3 D(CHPREM_{it}) * DB5_{it} + \beta_4 SIZE_{it} + \beta_5 DEBT_{it} + \beta_6 GROWTH_{it} + \beta_7 SCFO_{it} + \varepsilon_{it}$$

Parameters								Adj. R ² %	F (sig. level)
β_0	β_1	β_2	β_3	β_4	β_5	β_6	β_7		
-0.01423***	0.0365***	-0.0040	0.0115***	0.0023***	-0.0226***	0.0003***	-0.1574***	28.46	312.02
(-3.19)	(8.92)	(-1.49)	(2.70)	(5.65)	(-5.46)	(3.31)	(-16.42)		(0.0064)

DAC_{it} is discretionary accruals estimated from the modified Jones model by each industry and each year. $CHPREM_{it}$ is the change of current-year premanaged earnings over last-year reported earnings scaled by lagged total assets ($PREM_{it} - IB_{it-1} / AT_{it-1}$). Premanaged earnings ($PREM_{it}$) are defined as income before extraordinary items and discontinued operations scaled by lagged total assets minus discretionary accruals estimated from the modified Jones model ($IB_{it} / AT_{it-1} - DAC_{it}$). $D(CHPREM_{it})$ is a dummy variable equal to 1 if $CHPREM_{it} < 0$ and 0 otherwise. $DB5_{it}$ is a dummy variable equal to one if a firm has at least one outside 5 percent beneficial Blockholders and otherwise equal to 0. $SIZE_{it}$ is measured by the natural log of the firm's market value of equity. $DEBT_{it}$ is measured by the ratio of total debts to total assets. $GROWTH_{it}$ is measured by the market to book ratio for common equity. $SCFO_{it}$ is operating cash flows scaled by lagged total assets. Parameter estimates and t-statistics (in parentheses) are presented for the regression

*** Designates statistical significance at the 0.01 level, two-tailed tests, respectively

We use the same regression model contained in Equation (3) and OLS estimation to test hypothesis 3a and hypothesis 3b. Ownership by outside blockholders is represented by a continuous variable rather than a dummy variable. The continuous variable ($BLOCK_{it}$) is defined as the cumulative proportion of stocks owned by all outside blockholders who own at least 5 percent of the firm's outstanding stocks.

$$DAC_{it} = \beta_0 + \beta_1 D(CHPREM_{it}) + \beta_2 BLOCK_{it} + \beta_3 D(CHPREM_{it}) * BLOCK_{it} + \beta_4 SIZE_{it} + \beta_5 DEBT_{it} + \beta_6 GROWTH_{it} + \beta_7 SCFO_{it} + \varepsilon_{it} \quad (4)$$

$BLOCK_{it}$ is a continuous variable representing the combined proportion of stocks owned by a firm's outside blockholders who own at least 5 percent of the firm's outstanding stocks. Table 6 presents the summary statistics for the estimated regressions. The coefficient of $D(CHPREM_{it}) * BLOCK_{it}$ in Equation (4), β_3 , shows the effect of outside blockholder ownership on the tendency of firms using positive discretionary accruals to hide declining premanaged performance. β_3 is positive and significant at the 1 percent level ($t = 2.60$). This result is consistent with hypothesis 3b (exacerbating view) that the percentage of stocks owned by all outside 5 percent

blockholders is positively associated with managers' upward earnings management to hide declining premanaged earnings.

Table 6—Regression of Discretionary Accruals on Change of Premanaged Earnings and Continuous Outside Blockholder Ownership (N = 5475).

$$DAC_{it} = \beta_0 + \beta_1 D(CHPREM_{it}) + \beta_2 BLOCK_{it} + \beta_3 D(CHPREM_{it}) * BLOCK_{it} + \beta_4 SIZE_{it} + \beta_5 DEBT_{it} + \beta_6 GROWTH_{it} + \beta_7 SCFO_{it} + \varepsilon_{it}$$

Parameters								Adj. R ² %	F (sig. level)
β_0	β_1	β_2	β_3	β_4	β_5	β_6	β_7		
-0.0168*** (-4.25)	0.0423*** (19.04)	-0.0040 (-1.23)	0.0124*** (2.60)	0.0023*** (5.54)	-0.0220*** (-5.32)	0.0003*** (3.30)	-0.1571*** (-16.40)	28.45	311.96 (0.0064)

DAC_{it} is discretionary accruals estimated from the modified Jones model by each industry and each year. $CHPREM_{it}$ is the change of current-year premanaged earnings over last-year reported earnings scaled by lagged total assets ($PREM_{it} - IB_{it-1} / AT_{it-1}$). Premanaged earnings ($PREM_{it}$) are defined as income before extraordinary items and discontinued operations scaled by lagged total assets minus discretionary accruals estimated from the modified Jones model ($IB_{it} / AT_{it-1} - DAC_{it}$). $D(CHPREM_{it})$ is a dummy variable equal to 1 if $CHPREM_{it} < 0$ and otherwise equal to 0. $BLOCK_{it}$ is the percent of equity shares held by all outside beneficial 5 percent blockholders. $SIZE_{it}$ is measured by the natural log of the firm's market value of equity. $DEBT_{it}$ is measured by the ratio of total debts to total assets. $GROWTH_{it}$ is measured by the market to book ratio for common equity. $SCFO$ is operating cash flows scaled by lagged total assets. Parameter estimates and t-statistics (in parentheses) are presented for the regression

*** Designates statistical significance at the 0.01 level, two-tailed tests, respectively

Sensitivity Tests and Alternative Explanations

We use discretionary accruals (DAC_{it}) to compute premanaged earnings ($PREM_{it} = IB_{it} / AT_{it-1} - DAC_{it}$). The modified Jones model estimates discretionary accruals with errors, as indicated by prior research (e.g., Dechow et al., 1995; Guay et al., 1996). The measurement errors may cause a mechanical negative relation between the *levels* of premanaged earnings and discretionary accruals (Elgers et al., 2003). It is not clear whether the measurement errors may cause a similar mechanical relation between the *change* of premanaged earnings and discretionary accruals for the sample firms in this study. To examine the sensitivity of our results to such measurement errors, we use an alternative proxy for earnings management, abnormal working capital accruals ($AWCA_{it}$), to replace discretionary accruals estimated using the modified Jones model (DAC_{it}). Abnormal working capital accruals ($AWCA_{it}$) should be independent of estimation errors of the modified Jones model. Following DeFond and Park (2001), we define $AWCA_{it}$ as follows:

$$AWCA_{it} = WC_{it} - (WC_{it-1} / SALE_{it-1}) * SALE_{it}$$

where WC_{it} is noncash working capital for firm i in year t , measured as working capital ($WCAP_{it}$) less cash and cash equivalents (CHE_{it}), plus short-term debts (DLC_{it}), i.e., ($WC_{it} = WCAP_{it} - CHE_{it} + DLC_{it}$). The results, reported in Table 7, are qualitatively similar to those in Tables 5 and 6. The coefficients for

$D(CHPREM_{it}) \cdot DB5_{it}$ ($t = 1.81$) and $D(CHPREM_{it}) \cdot BLOCK_{it}$ ($t = 2.97$) are positive and significant at the 10 percent and 1 percent levels, respectively.

Dobrzynski (1993) suggests that blockholder ownership might be positively associated with earnings volatility because firms with more volatile earnings need patient and dedicated investors who are not sensitive to short-term volatility of performance. As previously discussed, the modified Jones model estimates discretionary

Table 7—Regression of Abnormal Working Capital Accruals on Change of Premanaged Earnings and Outside Blockholder Ownership Variables (N = 5294)

Variable	Regression Models	
	Model 1	Model 2
	Coefficient (t stat)	Coefficient (t stat)
Constant	-0.0139 (-2.32)**	-0.0102 (-1.92)*
$D(CHPREM_{it})$	0.0143 (2.61)***	0.0166 (5.56)***
$DB5_{it}$	-0.0026 (-0.70)	-
$BLOCK_{it}$	-	-0.0115 (-2.63)***
$D(CHPREM_{it}) \cdot DB5_{it}$	0.0103 (1.81)*	-
$D(CHPREM_{it}) \cdot BLOCK_{it}$	-	0.0191 (2.97) ***
$SIZE_{it}$	0.0018 (3.31) ***	0.0015 (2.73) ***
$DEBT_{it}$	0.0026 (0.47)	0.0032 (0.57)
$GROWTH_{it}$	0.0003 (2.10)**	0.0003 (2.16)**
$SCFO_{it}$	-0.1140 (-8.85) ***	-0.1142 (-8.87) ***
Adjusted R ² %	6.93 %	7.04 %
F	57.34	58.29
(sig. level)	(0.0013)	(0.0013)

Dependent variable is $AWCA_{it}$

$AWCA_{it}$ = Abnormal working capital accruals for firm i and year t scaled by lagged total assets. Abnormal working capital accruals for firm i and year t is measured as $WC_{it} - (WC_{it-1}/SALE_{it-1}) \cdot SALE_{it}$. WC_{it} is noncash working capital for firm i in year t , measured as working capital ($WCAP_{it}$) less cash and cash equivalents (CHE_{it}) plus short-term debts (DLC_{it}), i.e., $WC_{it} = WCAP_{it} - CHE_{it} + DLC_{it}$. WC_{t-1} is noncash working capital in year $t-1$. $SALE_{it-1}$ and $SALE_{it}$ are net sales of firm i for year $t-1$ and year t , respectively.

$D(CHPREM_{it})$ = A dummy variable. It equals 1 if $CHPREM_{it} < 0$, else it equals 0. Where: $CHPREM_{it}$ = The change of current-year premanaged earnings over last-year reported earnings scaled by lagged total assets ($PREM_{it} - IB_{it-1}/AT_{it-1}$).

Where $PREM_{it}$ = Income before extraordinary items and discontinued operations scaled by lagged total assets minus discretionary accruals estimated from the modified Jones model ($IB_{it}/AT_{it-1} - DAC_{it}$).

$DB5_{it}$ = A dummy variable equal to one if a firm has at least one outside 5 percent blockholders; else it equals 0.

$BLOCK_{it}$ = The percent of equity shares held by all outside 5 percent blockholders.

$SIZE_{it}$ = Measured by the natural log of the firm's market value of equity.

$DEBT_{it}$ = Measured by the ratio of total debts to total assets.

$GROWTH_{it}$ = Measured by the market to book ratio for common equity.

$SCFO_{it}$ = Operating cash flows scaled by lagged total assets.

Parameter estimates and t-statistics (in parentheses) are presented for the regressions. *, **, *** designates statistical significance at the 0.10, 0.05, 0.01 level, two-tailed tests, respectively

accruals with error. To the extent that the error is systematically related to earnings volatility, the positive association between outside blockholder ownership and discretionary accruals might be caused by the positive relationship between estimated discretionary accruals and earnings volatility. Thus, this study also uses another proxy for earnings management, total accruals scaled by total assets lagged by one year (TAC_{it}/AT_{it-1}). Discretionary accruals (DAC_{it}) in the Table 7 regression models are replaced with this measure (i.e., TAC_{it}/AT_{it-1}). Total accruals are not as powerful as discretionary accruals estimated using the modified Jones model, but this alternative measure is not correlated with earnings volatility. We define total accruals scaled by lagged total assets (TAC_{it}/AT_{it-1}) similar to that of Equation (1). Table 8 reports the results. The coefficient for $D(CHPREM_{it}) * DB5_{it}$ ($t = 2.89$) is positive and significant at 1 percent level, and the coefficient for $D(CHPREM_{it}) * BLOCK_{it}$ ($t = 2.45$) is positive and significant at 5 percent level. These results are qualitatively similar to the results in Table 5 and 6.

We examine whether the results of the pooled cross-sectional, time-series regressions are driven by serial correlations. We estimate the regression models in Tables 5 and 6 for each of the 10 years (from 1994 to 2003). We use the method proposed by Fama and Macbeth (1973) and average the regression coefficients across the ten yearly regressions, and compute t-statistics. The results (reported in Table 9) indicate that the coefficients for $D(CHPREM_{it}) * DB5_{it}$ and $D(CHPREM_{it}) * BLOCK_{it}$ are of the expected sign (i.e., positive) for six or seven of the ten sample years. The negative coefficients tend to concentrate in the last two years (i.e., 2002 and 2003). For the first eight years, 1994 to 2001, the coefficients are of the expected sign (i.e., positive) for six or seven of the eight sample years. One sample t-tests indicate that the averages of the coefficients for the first eight years (0.0144 and 0.0159) are significantly greater than 0 at the 5 percent levels ($t = 3.36$ and $t = 2.74$), respectively. The coefficients for year 2002 and 2003 are negative, but are not significant at the 10 percent level. The results suggest that the effect of outside blockholders on earnings management for firms with declining pre-managed earnings changed post-2001. One potential reason is the passage of Sarbanes Oxley Act (SOX) on July 30, 2002. The SOX Act enacted sweeping regulatory changes for corporate governance and financial reporting. As commented by the president of the AICPA, the act “contains some of the most far-reaching changes that Congress has ever introduced to the business world.”² The new regulations on corporate governance and financial reporting initiated by the act may substantially increase the cost of earnings management. Consistent with this expectation, some recent studies provide evidence that the SOX Act substantially reduced earnings management of public firms (Cohen, Dey, and Lys, 2005; Lobo and Zhou, 2006). The increased costs change the cost and benefit structure of earnings management for both management and outside blockholders,

² Barry C. Melancon, “A New Accounting Culture,” www.aicpa.org, September 4, 2002.

and consequently may have weakened or changed the association between outside blockholders and earnings management for our post-SOX sample periods (i.e., 2002 and 2003). Further examination of the effect of the SOX Act on the relationship between outside blockholders and earnings management is beyond the scope of this study and a topic for future research.

Table 8—Regression of Total Accruals on Change of Premanaged Earnings and Outside Blockholder Ownership Variables (N = 5475)

Variable	Regression Models	
	Model 1	Model 2
	Coefficient (t stat)	Coefficient (t stat)
Constant	-0.0104 (2.23) **	-0.0123 (2.99)***
D(CHPREM _{it})	0.0012 (0.28)	0.0083 (3.59)***
DB5 _{it}	-0.0052 (-1.84)*	-
BLOCK _{it}	-	-0.0064 (-1.86)*
D(CHPREM _{it})*DB5 _{it}	0.0128 (2.89) ***	-
D(CHPREM _{it})*BLOCK _{it}	-	0.0122 (2.45) **
SIZE _{it}	0.0032 (7.71) ***	0.0032 (7.26) ***
DEBT _{it}	-0.0789 (-18.36) ***	-0.0783 (-18.22) ***
GROWTH _{it}	0.0009 (9.13) ***	0.0009 (9.15) ***
SCFO _{it}	-0.4719 (-47.33) ***	-0.4717 (-47.31) ***
Adjusted R ² percent	36.26	36.23
F	445.85	445.36
(sig. level)	(0.0089)	(0.0089)

Dependent variable is TAC_{it}

TAC_{it} = Total accruals for firm *i* and year *t* scaled by lagged total assets (IB_{it} - OANCF_{it} + XIDOC_{it})/AT_{it-1}.

D(CHPREM_{it}) = A dummy variable equal to 1 if CHPREM_{it} < 0 and otherwise equal to 0. Where: CHPREM_{it} = the change of current-year premanaged earnings over last-year reported earnings scaled by lagged total assets (PREM_{it}-IB_{it-1}/AT_{it-1}).

Where: PREM_{it} = Income before extraordinary items and discontinued operations scaled by lagged total assets minus discretionary accruals estimated from the modified Jones model (IB_{it}/AT_{it-1} - DAC_{it}).

DB5_{it} = A dummy variable equal to one if a firm has at least one outside 5 percent Blockholders and otherwise equal to 0.

BLOCK_{it} = The percent of equity shares held by all outside 5 percent blockholders.

SIZE_{it} = Measured by the natural log of the firm's market value of equity.

DEBT_{it} = Measured by the ratio of total debts to total assets.

GROWTH_{it} = Measured by the market to book ratio for common equity.

SCFO_{it} = operating cash flows scaled by lagged total assets.

Parameter estimates and t-statistics (in parentheses) are presented for the regression. A *, **, *** designates statistical significance at the 0.05, 0.01 level, two-tailed tests, respectively

Dechow et al. (1996) suggests that attracting external financing is among the strongest motivations to overstate earnings. If earnings management in firms with declining financial performance is mainly for attracting external financing, the positive association between outside blockholders and earnings management may be explained by the fact that firms with outside large shareholders have greater demand

for external financing than do firms without outside blockholders. To rule out this alternative explanation, we use free cash flow as a proxy for the firm's demand for external financing (Dechow et al. 1996). We define free cash flow (FCF) as follows:

$$FCF_{it} = (\text{Operating Cash Flows}_{it} - \text{Capital Expenditures}_{it}) / \text{Total Assets}_{it-1}.$$

We include this free cash flow variable as another control variable in our regression models.

Table 9—Fama and Macbeth Regression Analysis for 1994-2003

Year	Regression Model in Table 6	Regression Model in Table 7
	Coefficients of $D(\text{CHPREM}_{it}) * \text{DB5}_{it}$	Coefficients of $D(\text{CHPREM}_{it}) * \text{BLOCK}_{it}$
1994	0.00103	0.02006
1995	0.02573	-0.01161
1996	-0.00003	0.00892
1997	0.02742	0.00970
1998	0.02163	0.03855
1999	0.02090	0.02424
2000	-0.00073	0.00396
2001	0.01930	0.03324
2002	-0.02220	-0.01284
2003	-0.01798	-0.01016
1994 — 2003		
Mean	0.0075	0.0104
S. Error	0.0057	0.0059
t-stat.	1.31	1.78
p-value (two-tailed)	0.2219	0.1095
1994—2001		
Mean	0.0144	0.0159
S. Error	0.0043	0.0058
t-stat.	3.36	2.74
p-value (two-tailed)	0.0122	0.0291

Bushee (1998) indicates that the percentage of dedicated ownership is positively associated with other categories of institutional ownership. Without controlling total institutional ownership, our measures of outside blockholder ownership might reflect the effects of other categories of institutional ownership. Because of these potential relationships, we include total institutional ownership (INST_{it}) as a control variable. We define total institutional ownership as the percentage of equity shares held by all institutional investors.

We add the two control variables, FCF_{it} and INST_{it} , to the regression models in Tables 5 and 6. The results (not reported) qualitatively remain the same as those previously reported. The coefficient of both $D(\text{CHPREM}_{it}) * \text{DB5}_{it}$ and $D(\text{CHPREM}_{it}) * \text{BLOCK}_{it}$ are significant at 5 percent.

The exclusion of the control variables ($SIZE_{it}$, $DEBT_{it}$, $GROWTH_{it}$, and $SCFO_{it}$) from our regression models does not qualitatively change the reported results for the variables of our research interest. To make sure that a few extreme values are not driving our results, we exclude the firm-year observations whose outside blockholders own 90 percent or more of the outstanding stocks. For the change of premanaged earnings ($CHPREM_{it}$) and current-year income before extraordinary items and discontinued operations scaled by total assets of lagged year ($IB_{it}/AT_{i,t-1}$), we exclude the highest and lowest 1 percent of the firm-year observations. We also use some formal procedures to detect outliers and observations with undue influence, such as studentized residual and Cook's D. The results remain qualitatively unchanged.

The above sensitivity tests indicate that our results are robust. The results are not sensitive to alternative measures of earnings management and remain qualitatively unchanged with the inclusion of extra control variables and the exclusion of control variables or extreme observations.

Conclusions and Limitations

Our research extends the literature by examining the association between outside blockholders and earnings management. Our research reveals several findings. First, consistent with prior research, managers in firms that experience declining premanaged financial performance tend to manage earnings upward, relative to the other firms. Second, the existence of outside blockholders produces extra pressure on managers to manage earnings upward when their firms, without earnings management, will face declining performance. These results suggest outside blockholders generally are not effective monitors of within-GAAP earnings management. Given the evidence in Dechow et al. (1996), the results also suggest that the effectiveness of outside blockholders in monitoring may be significantly different for within-GAAP earnings management and earnings management that violates GAAP. Third, the effect of outside blockholders on earnings management of firms with declining performance may have changed due to the sweeping regulatory changes initiated by Sarbanes-Oxley Act 2002.

There are several major limitations to this study. First, measurement error is a critical problem for the studies on earnings management. Our study mitigates this limitation through data trimming, control variables, and alternative measures for earnings management. Second, although the use of archival data and large sample size enhance the external validity of this study, the use of NYSE firms might bias the sample toward relatively large and established firms. The results in this study might not apply to small firms. Finally, our results may not apply to firms that have a substantial percentage of outstanding shares held by their executives and board directors because these firms are excluded from our sample.

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