
CORPORATE GOVERNANCE AND REAL EARNINGS MANAGEMENT

Gnanakumar Visvanathan, George Mason University

ABSTRACT

The role of corporate governance in financial reporting has received significant attention in recent years. In particular, researchers have examined whether certain governance factors restrain earnings management practices at companies. This research has primarily focused on accrual type earnings management. This study examines the role of corporate governance in the context of “real” earnings management where firms attempt to achieve desired earnings numbers by departing from normal operating activities. Using a sample of 6,759 firm years, the study examines several overall board characteristics and audit committee characteristics in the context of real earnings management. The study finds limited support for some of the factors that have been found to be significant in constraining accruals type earnings management. Having a higher proportion of independent directors appears to be helpful in limiting this type of earnings management, however. These results should be of interest to investors and regulators who rely on governance mechanisms to oversee the integrity of corporate financial reporting.

INTRODUCTION

The passage of Sarbanes-Oxley Act of 2002 by the U.S. Congress and the several high profile accounting restatements that occurred in recent years have focused the attention of researchers and the media on various types of earnings management undertaken by corporations and the reforms needed to minimize such actions. In this regard, considerable critical attention has been focused upon the role of the board of directors and audit committees in overseeing the activities of executives, in particular in instances of earnings manipulation. Sarbanes-Oxley Act enacted provisions that deal with rules governing corporate governance in general and board of directors in particular that should likely constrain earnings manipulation. Several research studies prior to and after Sarbanes-Oxley Act have examined the role of board of directors in constraining earnings management (for example, see Klein 2002a).

Much of the attention focuses on accrual type earnings management such as aggressive revenue recognition and misstatement of inventories or accounts receivable etc. Companies manipulate earnings not only by accruals but also by taking or postponing production or operating actions that adjusts the earnings towards the desired target. The latter type is labeled as “real” earnings management. In contrast to accruals management, real earnings management is likely to lead to value reduction by misallocation of appropriate corporate activities. Prior research has

primarily studied the role of corporate governance in the context of accruals management. This study examines whether certain characteristics of governance constrain real earnings management. Graham et al (2005) document the pervasive occurrence of earnings management through real activities and note that managers are likely to turn toward this type of earnings management in the post–Sarbanes-Oxley era because much of the media and analyst attention is focused on accrual type earnings management. In contrast to evidence and attention on accruals management the research focus on real earnings management has been scarce and relatively new. Given the importance of real earnings management as noted by Graham et al. this study seeks to answer the question whether and what type of corporate governance characteristics constrain real earnings management.

To address this issue this study uses a sample of 9,567 firm years over the period 1996 to 2002. Several data on overall board characteristics such as the number of directors in the board, whether the chief executive office and the chairmanship of the board are occupied by the same person, and the proportion of directors who are independent are used in the analysis. Similarly, characteristics of audit committees such as the size of the audit committee, the proportion of directors who are independent in the audit committee and the number of meetings held by the committee are also used. Using models developed by Roychowdury (2006), the study examines the association between proxies for real earnings management and the board and audit committee characteristics. In addition to the corporate governance variables, the models include control variables as specified in Roychowdury.

The results show that overall board independence is significantly negatively associated with occurrence of real earnings management. For most other board or audit committee variables, no significant association obtains with real earnings management proxies. Such results indicate that in contrast to results in studies that have examined accrual type earnings management and found significance for a variety of board and audit committee variables (see Klein 2002a for example), in the case of real earnings management governance variables do not appear to have a strong role. This indicates that investors, regulators, and analysts who rely on governance mechanisms to play a significant role in restraining earnings management practices may have to reexamine the appropriateness of governance provisions to address the evolving and novel means of corporate financial reporting distortions.

HYPOTHESES DEVELOPMENT

Graham et al. survey CFOs and document that managers often engage in real earnings management to meet or beat earnings expectations. They note that in the post-SOX environment managers may prefer to shift from taking accounting actions, i.e., accounting policies and estimates, to real actions to manage earnings. This is because after SOX accounting actions may be subject to increased scrutiny from auditors and regulators. Graham et al. estimate that managers' attempts to engage in earnings management destroy \$150 billion of value and thus it is potentially important to identify mechanisms that may constrain real earnings management.

Roychowdhury (2006) defines real activities manipulation as “departures from normal operational practices, motivated by managers’ desire to mislead at least some stakeholders into believing certain financial goals have been met in the normal course of operations. These departures do not necessarily contribute to firm value even though they enable managers to meet reporting goals.” He investigates patterns in cash flow from operations (CFO), discretionary expenses, and production costs and hypothesizes that manipulating real activities would result in abnormally *low* cash flow from operations or unusually *low* discretionary expenses, such as advertising or research and development expenses, or unusually *high* production costs. His arguments rely on the fact that real earnings management manifests through sales manipulation, reduction of discretionary expenditures, or overproduction. For example, if a firm tries to achieve higher sales by providing price discounts this will lead to lower cash flows over the life of the sales and thus will lead to lower cash flow from operations. Thus, lower cash flow from operations is a potential characteristic of real earnings management firms. Second, firms can manage earnings by reducing discretionary expenses such as R&D, advertising, and maintenance. Because these are expensed in the period they are incurred, a reduction in their spending directly flows through to increase income. Thus, another potential characteristic of firms doing real earnings manipulation is lower discretionary expenses. Last, to report higher earnings firms may lower their cost of goods sold expense by means of overproduction. By producing more than necessary, fixed overhead costs are spread over a larger number of units, which results in a decrease in total cost per unit. This in turn, decreases cost of goods sold which increases income. Thus, another potential characteristic of real earnings management firms is that they exhibit high production costs.

Board members bear costs (litigation risk and harm to reputation capital) associated with earnings management in general and thus, are expected to constrain real earnings management. Prior literature on board governance argues that certain attributes of corporate governance are associated with lower earnings management. The key attributes are discussed below:

Board characteristics

Board Size

Jensen (1993) argues that board size is negatively related to its ability to advise and engage in long term planning because of the difficulty in organizing and coordinating a large number of directors. In contrast, Klein (2002b) argues that large boards can distribute committee work and thus size increases the ability to monitor. Yermack (1996) also notes that some firms may require larger boards for effective monitoring. Thus, conflicting arguments about the relationship between board size and monitoring suggest that we can not reliably predict the direction of association between board size and real earnings management.

Board independence

Prior research argues and finds support for the notion that independent boards are more likely to monitor effectively and thus curb earnings management practices. Beasley (1996) and Dechow, Sloan, and Sweeney (1996) find that board independence is negatively related to the occurrence of financial statement fraud. Klein (2002a) finds that abnormal accruals and board independence are negatively related. Such findings suggest that board independence and real earnings management are likely to be negatively related.

CEO duality

Fama and Jensen (1983) argue that separating the positions of chief executive officer and chairman of the board would improve board monitoring and organizational performance by providing an independent check on the chief executive officer position. Thus firms that have the same person holding these 2 positions are likely to have less effective monitoring which reduces the likelihood of constraining earnings manipulation. This argument suggests that separation of chief executive officer and chairman of the board is likely to be negatively associated with real earnings management.

Audit committee characteristics

Because audit committee is the part of the board of directors that is entrusted to oversee and monitor the financial reporting process, the audit committee characteristics are important in considering the board's role in constraining real earnings management.

Audit committee size

Prior literature (see for example, Abbott et al. 2004) has found that the audit committee's effectiveness is positively related to the size of the committee. Larger committees are more likely to have greater participation in the governance process and are more likely to address controls and reporting more comprehensively. Thus a negative association between the size of the audit committee and real earnings management is predicted.

Audit committee independence

Similar to the arguments made previously regarding the effectiveness of the board the higher its independence, the audit committee's effectiveness also increases in its independence (Abbott et al. 2004). Thus a negative relationship is expected between audit committee independence and real earnings management.

Audit committee meetings

Raghunandan et al. (2001) and PriceWaterhouseCoopers/IIA (2000) argue that audit committees can be effective only if they meet frequently and also meet with internal and external auditors to be apprised of recent developments. Meeting frequency of the committee has also been used as a proxy for diligence in prior literature (DeZoort et al. 2002; Menon and Williams 1994). Such findings suggest that effective audit committees meet more often and are able to monitor better. This would imply a negative association between number of audit committee meetings and real earnings management.

SAMPLE

The data consists of 9,567 firm years over the period 1996 to 2002 for which the governance data are available in proxy statements. These consist of 1,094 firms for 1996, 1,296 firms for 1997, 1,428 firms for 1998, 1,468 firms for 1999, 1,446 firms for 2000, 1,446 firms for 2001, and 1,389 firms for 2002. While a larger number of firms have financial statement data available, the sample is reduced to 6,759 because of the required data for governance and some of the control variables. The required control variables are described in the following section.

MODELS

Testing for real earnings management directly is difficult as we do not observe the manipulations nor do we learn of them ex-post as in the case fraud investigations by the Securities and Exchange Commission. Thus the research design needs to develop proxies that would reasonably reflect the consequences of any activity based manipulation. To this end, this paper uses the approach developed by Roychowdhury. As noted before, Roychowdhury hypothesizes that manipulating real activities would result in abnormally *low* cash flow from operations or unusually *low* discretionary expenses, such as advertising or research and development expenses, or unusually *high* production costs. Following Roychowdhury, abnormal cash flow from operations (*CFO*), discretionary expenses (*DISEXP*), and production costs (*PROD*) are estimated as follows:

$$ACFO = \text{Abnormal cash flow from operations, measured as deviations from the predicted values from the corresponding industry-year regression } CFO/A_{t-1} = a_0 + a_1*(1/A_{t-1}) + b_1*(S_t/A_{t-1}) + b_2*(\Delta S_t/A_{t-1}) + e_t \text{ where CFO is Cash Flow from Operations, S is Sales, and A is Total Assets;}$$

$$ADISEXP = \text{Abnormal discretionary expenses, measured as deviations from the predicted values from the corresponding industry-year regression } DISEXP/A_{t-1} = a_0 + a_1*(1/A_{t-1}) + b_1*(S_t/A_{t-1}) + e_t \text{ where DISEXP is R\&D}$$

+ Advertising + Selling, General, and Administrative expenses; as long as Selling, General, and Administrative expenses are available, Advertising and R&D are set to zero if they are missing;

APROD = Abnormal production costs, measured as deviations from the predicted values from the corresponding industry-year regression $PROD/A_t = a_0 + a_1*(1/A_{t-1}) + b_1*(S/A_{t-1}) + b_2*(\Delta S/A_{t-1}) + b_3*(\Delta S_{t-1}/A_{t-1}) + e_t$, where *PROD* equals Cost of Goods Sold + Changes in inventory.

Industry regressions for estimating deviations from predicted values are estimated at the two-digit SIC code level. *ACFO*, *ADISEXP*, and *APROD* are regressed on the governance variables considered previously, and control variables specified in Roychowdhury. The following control variables are measured as deviations from the corresponding industry-year means: income before extraordinary items scaled by lagged total assets (*NETINCOMEI*), logarithm of market value of equity (*SIZEI*), the ratio of market value of equity to the book value of equity (*MTBI*), an indicator variable set equal to 1 if there is long-term or short-term debt outstanding at the beginning of the year or at the end of the year (*HASDEBTI*), the sum of industry-year adjusted inventories and receivables as a percentage of total assets (*INVRECI*), and current liabilities excluding short-term debt, scaled by total assets (*CLI*).

Because the some of the overall board variables such as board size and board independence are highly correlated with audit committee variables, such as audit committee size and independence, we use 2 models.

The first set of models use only the overall board variables and are specified as:

ACFO = $a_0 + a_1 BSIZE + a_2 NODUAL + a_3 BIND + a_4 NETINCOMEI + a_5 SIZEI + a_6 MTBI + a_7 HASDEBTI + a_8 INVRECI + a_9 CLI$

ADISEXP = $a_0 + a_1 BSIZE + a_2 NODUAL + a_3 BIND + a_4 NETINCOMEI + a_5 SIZEI + a_6 MTBI + a_7 HASDEBTI + a_8 INVRECI + a_9 CLI$

APROD = $a_0 + a_1 BSIZE + a_2 NODUAL + a_3 BIND + a_4 NETINCOMEI + a_5 SIZEI + a_6 MTBI + a_7 HASDEBTI + a_8 INVRECI + a_9 CLI$

The second set of models use only the audit committee variables and are specified as:

ACFO = $a_0 + a_1 ACSIZE + a_2 ACIND + a_3 ACMEET + a_4 NODUAL + a_5 NETINCOMEI + a_6 SIZEI + a_7 MTBI + a_8 HASDEBTI + a_9 INVRECI + a_{10} CLI$

$$\begin{aligned}
 ADISEXP &= a_0 + a_1 ACSIZE + a_2 ACIND + a_3 ACMEET + a_4 NODUAL \\
 &+ a_4 NETINCOMEI + a_6 SIZEI + a_7 MTBI + a_8 HASDEBTI \\
 &+ a_9 INVRECI + a_{10} CLI
 \end{aligned}$$

$$\begin{aligned}
 APROD &= a_0 + a_1 ACSIZE + a_2 ACIND + a_3 ACMEET + a_4 NODUAL \\
 &+ a_4 NETINCOMEI + a_6 SIZEI + a_7 MTBI + a_8 HASDEBTI \\
 &+ a_9 INVRECI + a_{10} CLI
 \end{aligned}$$

where,

ACFO, *ADISEXP*, *APROD*, *NETINCOMEI*, *SIZEI*, *MTBI*, *HASDEBTI*, *INVRECI*, and *CLI* are as defined before, and

<i>BSIZE</i>	= Log of total number of directors in the board;
<i>NODUAL</i>	= A dummy variable that equals 1 if CEO is also not chairman of the board, and equals 0 otherwise;
<i>BIND</i>	= Proportion of directors that are independent in the board of directors;
<i>ACIND</i>	= Proportion of directors that are independent in the audit committee;
<i>ACSIZE</i>	= Log of total number of directors in the audit committee;
<i>ACMEET</i>	= Number of meetings by the audit committee during the year;

Because a pooled data is used and firms repeat over many years, Fama-Macbeth regressions are used to control for cross-correlation in firm observations across years.

RESULTS

Table 1 presents the results for models with overall board governance variables. Neither the size of the board, *BSIZE*, nor the duality of chairman-chief executive officer position, *NODUAL*, is significant. The results for board size indicate that the number of directors is not a significant factor in limiting real earnings management. The results for *NODUAL* indicate that separation of roles at the top of the firm does not appear to matter for real earnings management either. The variable representing board independence, *BIND*, is not significant for the abnormal cash flows model. Board independence is significant in the abnormal production and abnormal discretionary expenses models, however. Specifically, firms with higher board independence have lower abnormal production costs and higher abnormal discretionary expenses. This indicates that board independence plays a constraining role on real earnings management. This evidence is consistent with prior research such as Klein (2002a) that documents a similar role for board independence in the context of accruals management. While the result does not hold for all the three models of real

earnings management but only for two of the three, it is indicative of the monitoring role played by independent directors in limiting both accruals and real type of earnings management.

Table 1: Board Governance variables and Real Earnings Management			
Variable ^a	<i>Real Earnings Management Measures</i>		
	Abnormal CFO Coefficient (t-statistic) ^b	Abnormal PROD Coefficient (t-statistic) ^b	Abnormal DISEXP Coefficient (t-statistic) ^b
Intercept	0.088	-0.049	0.211
	(2.64***)	(-0.80)	(3.77***)
BSIZE	-0.007	-0.016	0.040
	(-0.44)	(-0.59)	(1.27)
NODUAL	-0.005	0.006	-0.034
	(-0.64)	(0.43)	(-1.31)
BIND	-0.027	-0.103	0.105
	(-1.30)	(-2.19**)	(2.08**)
NETINCOMEI	0.611	-1.330	2.160
	(5.34***)	(-4.45***)	(3.75***)
SIZEI	0.006	0.019	-0.067
	(2.15**)	(1.23)	(-1.15)
MTBI	-0.001	-0.001	0.001
	(-0.29)	(-0.61)	(-1.11)
HASDEBTI	-0.005	0.026	0.017
	(-0.39)	(1.10)	(0.81)
INVRECI	-0.240	0.213	-0.431
	(-2.64***)	(2.28**)	(-3.36***)
CLI	-0.085	-0.163	0.405
	(-2.10**)	(-1.43)	(2.60***)
Adj. R ²	0.40	0.43	0.45

Table 1: Board Governance variables and Real Earnings Management

^a Specified predicted sign for the governance variables *NODUAL* and *BIND* is positive in the Abnormal CFO and Abnormal DISEXP models. Predicted sign for these governance variables is negative in the Abnormal PROD model.

^b *t*-statistics are computed based on Fama-Macbeth regressions over the period 1996-2002. The number of observations is 6,759.

*, ** and *** represent significances at 10 percent, 5 percent, and 1 percent levels respectively for one-tailed tests (for *NODUAL* and *BIND*) where predicted signs are specified, and for two-tailed tests (all variables other than the ones specified for one-tailed tests) otherwise.

Each model includes, but does not tabulate, 10 industry dummies based on 11 Fama-French industries. Because we consider all industries, we do not separately use a manufacturing industry variable as in Roychowdhury (2006). Real earnings management variables and controls for real earnings management are from Roychowdhury (2006).

<i>ACFO</i>	= Abnormal cash flow from operations, measured as deviations from the predicted values from the corresponding industry-year regression $CFO/A_{t,t-1} = a_0 + a_1*(1/A_{t,t-1}) + b_1*(S/A_{t,t-1}) + b_2*(\Delta S/A_{t,t-1}) + e_t$, where CFO is Cash Flow from Operations, S is Sales, and A is Total Assets;
<i>ADISEXP</i>	= Abnormal discretionary expenses, measured as deviations from the predicted values from the corresponding industry-year regression $DISEXP/A_{t,t-1} = a_0 + a_1*(1/A_{t,t-1}) + b_1*(S/A_{t,t-1}) + e_t$, where DISEXP is: R&D + Advertising + Selling, General and Administrative expenses; as long as Selling, General and Administrative expenses are available; advertising and R&D are set to 0 if they are missing;
<i>APROD</i>	= Abnormal production costs, measured as deviations from the predicted values from the corresponding industry-year regression $PROD/A_{t,t-1} = a_0 + a_1*(1/A_{t,t-1}) + b_1*(S/A_{t,t-1}) + b_2*(\Delta S/A_{t,t-1}) + b_3*(\Delta S/A_{t,t-1}) + e_t$, where PROD equals Cost of Goods Sold + Changes in Inventory;
<i>NETINCOMEI</i>	= Income before extraordinary items scaled by lagged total assets, expressed as deviation from the corresponding industry-year mean;
<i>SIZEI</i>	= Logarithm of market value of equity, expressed as deviation from the corresponding industry-year mean;
<i>MTBI</i>	= The ratio of market value of equity to the book value of equity, expressed as deviation from the corresponding industry-year mean;
<i>HASDEBTI</i>	= An indicator variable set equal to 1 if there is long-term or short-term debt outstanding at the beginning of the year or at the end of the year;
<i>INVRECI</i>	= The sum of industry-year adjusted inventories and receivables as a percentage of total assets and expressed as deviation from the corresponding industry-year mean;
<i>CLI</i>	= Current liabilities excluding short-term debt, scaled by total assets and expressed as deviation from the corresponding industry-year mean
<i>BFSIZE</i>	= Log of total number of directors in the board;
<i>NODUAL</i>	= A dummy variable that equals 1 if CEO is also not chairman of the board, and equals 0 otherwise;
<i>BIND</i>	= Proportion of directors that are independent in the board of directors;

Among the control variables used by Roychowdhury results in table 1 indicate that variables representing profitability, NETINCOMEI, inventory and receivables, INRECI, and current liabilities, CLI, are significant. The variables for market to book ratio, MTBI, and debt, HASDEBTI, are not significant while the size variable, SIZEI, is significant in the abnormal cash flows model. The explanatory power of the models which is around 40% is comparable to results in Roychowdhury.

Table 2 presents the results for governance variables that include primarily the audit committee variables. Neither the size of the audit committee, ACSIZE, nor the proportion of independent directors in the audit committee, ACIND, is significant in any of the three models. The results for ACSIZE are consistent with the results for board size and indicate that the number of directors either in the board as a whole or in the audit committee do not appear to be associated with real earnings management. The insignificance of audit committee independence is in contrast to results for board independence as the former does not appear to be associated with real earnings management while the latter is, as results in table 1 show. The variable representing the number of audit committee meetings, ACMEET, is not significant for the abnormal cash flows and abnormal production cost models. It is significant with the correct expected sign for the abnormal discretionary expenses model, however. This indicates that audit committee meeting frequency which is considered a measure of the committee's diligence, is important in a limited fashion for constraining real earnings management.

Results for other control variables are similar to results in table 1 and the explanatory power of the models is also similar to table 1, although slightly lower.

The results in tables 1 and 2, in combination indicate that governance characteristics with a singular exception appear to be largely unassociated with occurrence of real earnings management. This could be because of several reasons. First, real earnings management is not an infraction that auditors, analysts, and other outside stakeholders focus on and thus the board may not feel compelled to direct attention on the issue. Second, unlike detection of accruals management where detection of manipulation is enabled by several analytical tools which have a long history of being used by researchers and analysts, detection of changes in business activities to achieve earnings targets is relatively more complex and has lesser tools to detect. Third, the results in the study may have a limitation to the extent there are measurement errors in identifying real management proxies and thus some of the non-significance may be attributable to this factor.

Table 2: Audit Committee Governance variables and Real Earnings Management

Variable ^a	<i>Real Earnings Management Measures</i>		
	Abnormal CFO Coefficient (t-statistic) ^b	Abnormal PROD Coefficient (t-statistic) ^b	Abnormal DISEXP Coefficient (t-statistic) ^b
Intercept	0.058	-0.122	0.244
	(1.90*)	(-2.40*)	(2.95***)
ACSIZE	0.003	0.137	-0.001
	(0.21)	(0.60)	(-0.03)
ACIND	-0.008	-0.014	0.004
	(-0.95)	(-0.99)	(0.31)
ACMEET	0.002	0.004	0.018
	(0.88)	(-1.07)	(2.55**)
NODUAL	-0.004	0.004	-0.042
	(-0.42)	(0.90)	(-1.21)
NETINCOMEI	0.542	-1.595	2.264
	(5.60***)	(-7.10***)	(5.75***)
SIZEI	0.007	0.019	-0.058
	(1.49)	(2.50**)	(-1.53)
MTBI	0.001	-0.001	-0.001
	(0.19)	(-0.21)	(-0.64)
HASDEBTI	-0.017	0.013	-0.003
	(-1.10)	(0.53)	(-0.13)
INVRECI	-0.228	0.236	-0.376
	(-2.92***)	(2.30**)	(-3.12***)
CLI	-0.130	-0.114	0.296
	(-1.86*)	(-0.51)	(1.72*)
Adj. R ²	0.35	0.38	0.39

Table 2: Audit Committee Governance variables and Real Earnings Management

^a Specified predicted sign for the governance variables *ACSIZE*, *ACIND* and *ACMEET* is positive in the Abnormal CFO and Abnormal DISEXP models. Predicted sign for these governance variables is negative in the Abnormal PROD model.

^b *t*-statistics are computed based on Fama-Macbeth regressions over the period 1996-2002. The number of observations is 6.759.

*, ** and *** represent significances at 10 percent, 5 percent, and 1 percent levels respectively for one-tailed tests (for *ACSIZE*, *ACIND*, *ACMEET* and *NODUAL*) where predicted signs are specified, and for two-tailed tests (all variables other than the ones specified for one-tailed tests) otherwise.

Each model includes, but does not tabulate, 10 industry dummies based on 11 Fama-French industries. Because we consider all industries, we do not separately use a manufacturing industry variable as in Roychowdhury (2006). Real earnings management variables and controls for real earnings management are from Roychowdhury (2006).

ACIND = Proportion of directors that are independent in the audit committee;
ACSIZE = Log of total number of directors in the audit committee;
ACMEET = Number of meetings by the audit committee during the year;
NODUAL = A dummy variable that equals 1 if CEO is also not chairman of the board, and equals 0 otherwise;

CONCLUSIONS

The role of corporate governance is of fundamental importance in monitoring actions of executives, in particular, in the financial reporting process. Prior research has studied extensively whether certain characteristics of board of directors promote or deter earnings management practices. These studies primarily focus on accrual type of earnings management. More recently, Graham et al (2005) have documented the extensive prevalence of real earnings management that aims to achieve desired earnings target through manipulation of operating activities. This raises the empirical issue whether certain corporate governance characteristics are better at constraining this type of earnings management. This study examines this issue and finds that most overall board characteristics and audit committee characteristics that have been found to be significant in limiting accrual type earnings management are not significant in limiting real earnings management. The one characteristic that is significant (in two of the three models used) is the proportion of independent directors. Notably, prior literature on accruals management has also generally found this variable to be significant. The lack of significance for other governance variables indicates that most directors may be focused upon primarily accruals type earnings management because of the attention it derives from media and researchers, and may be less focused upon other types of

earnings management. Whether the association of governance factors with restraint over real earnings management improves over time is an interesting question that can be addressed by future research.

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