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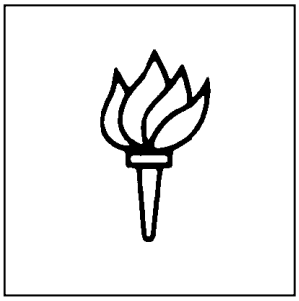

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April Klein

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*Leonard N. Stern School of Business
New York University
40 West 4th Street
New York, N.Y. 10012
(212) 998 – 0014
aklein@stern..nyu.edu

Abstract

This study examines whether audit committee and board characteristics are related to earnings management by the firm. The motivation behind this study is the implicit assertion by the SEC, the NYSE and the NASDAQ that earnings management and poor corporate governance mechanisms are positively related.

A non-linear negative relation is found between audit committee independence and earnings manipulation. Specifically, a significant relation is found only when the audit committee has less than a majority of independent directors. Surprisingly, and in contrast to the new regulations, no significant association is found between earnings management and the more stringent requirement of 100% audit committee independence.

Empirical evidence also is provided that other corporate governance characteristics are related to earnings management. Earnings management is positively related to whether the CEO sits on the board's compensation committee. It is negatively related to the CEO's shareholdings and to whether a large outside shareholder sits on the board's audit committee. These results suggest that boards structured to be more independent of the CEO may be more effective in monitoring the corporate financial accounting process.

I. Introduction

In December 1999 the NYSE and NASDAQ modified their requirements for audit committees for all listed, large U.S. companies.[1] Under the new standards, firms must maintain audit committees with at least three directors, "all of whom have no relationship to the company that may interfere with the exercise of their independence from management and the company."[2] These new requirements are in response to the SEC's call for improving the effectiveness of corporate audit committees in overseeing the financial reporting process. One specific area of concern to the SEC was inappropriate "earnings management" by the firm defined as "the practice of distorting the true financial performance of the company."[3] The common thread running through the SEC and stock exchange proposals is an implicit positive connection between earnings management and non-independent audit committees. Yet no study to date has explicitly tested this assertion.[4] The purpose of this paper is to undertake such as study.

[1] These changes were based on The Report and Recommendations of the Blue Ribbon Committee on Improving the Effectiveness of Corporate Audit Committees, issued in February 1999. The NYSE and NASDAQ sponsored the committee, created in September 1998. Note that the NASDAQ is comprised of the "old" NASDAQ as well as the AMEX.

[2] NYSE Listing Guide, § 303.01(B)(2)(a). In the next section, I provide more details on the definition of independence as well as exclusions to the NYSE and NASDAQ rules.

[3] See SEC Chairman Arthur Levitt's Address to NYU Center for Law and Business on September 28, 1998, the SEC's proposed rule 32-41987 published on October 8, 1999 and the final rule on audit committee disclosure dated January 10, 2000 for use and definition of earnings management by the SEC. All three can be found on www.sec.gov.

[4] Two previous papers on whether the existence of an audit committee discourages the incidence of financial fraud produce conflicting results. Dechow, Sloan and Sweeney (1996), using a sample of 96 U.S. firms subject to earnings manipulation enforcement actions by the SEC, finds a negative relation between audit committee existence and the probability of being subject to such an action. Beasley (1996), using a sample of 75 U.S. firms accused by the SEC of violating Rule 10(b)-5 of the 1934 Act, finds no significant relation between the two variables. In a similar vein, DeFond and Jiambalvo (1991) find that earning overstatement errors are less prevalent for firms that audit committees. They use a sample of 41 corrections from 1977 through 1988 and a matching control sample.

Using a sample of 687 large, publicly-traded U.S. firms, I examine whether the magnitude of discretionary accruals (i.e., earnings management) is related to audit committee independence. After controlling for other factors found to be related to abnormal accruals and audit committee composition, I find that earnings management is more pronounced for firms that have audit committees comprised of less than a majority of independent directors. Surprisingly, no difference in earnings management is found between firms with and without wholly-independent committees.

However, audit committees are not created in a corporate governance vacuum. In fact, the Blue Ribbon Committee report on improving the effectiveness of corporate audit committees explicitly recognizes that the audit committee's effectiveness is embedded within the larger corporate governess process.[5] Nor should it be ignored that audit committees report to the board as a whole. Given the complexity of the audit committee's interactions with the board, I also examine whether earnings management is related to other board characteristics. Specifically, I examine the relation between earnings manipulation and overall board independence, whether the CEO sits on the board's nominating committee and whether the CEO sits on the board's compensation committee. The assertion is that better, more independent, corporate governance structures produces less earnings manipulations by management.

No significant coefficients are found for board independence or whether the CEO sits on the board's nominating committee. However, a significantly positive association exists between earnings management and whether the CEO sits on the board's compensation committee. This finding can be interpreted two ways. First, a board that

[5] This sentiment can also be found in the Business Roundtable's white paper, Statement on Corporate Governance (1997).

permits its CEO to sit on its executive compensation committee is "chummy" with its CEO. Or, a CEO sitting on its board compensation committee has both the motivation and the access to manipulate earnings to maximize his/her overall compensation package.

Another corporate governance mechanism is equity ownership. Non-management directors with large blockholdings are more apt to closely monitor the firm than directors with insignificant shareholdings. In support of this assertion, I find a significantly negative relation between earnings management and whether a large non-management blockholder sits on the board's audit committee. I also find a positive relation between earnings management and CEO shareholdings, a result consistent with the view that CEOs may manipulate earnings to increase their short-term stock returns (e.g., see Aboody and Kasznik (2000) and Yermack (1997)).

The overall implication of my findings is that boards and audit committees structured to be independent of management are best able to perform their independent oversight functions. The uniqueness of this paper vis-à-vis other papers relating board characteristics to earnings management is that I find evidence that "ordinary" firms (large, U.S. firms listed on the S&P 500) appear to provide more unbiased financial statements if their relevant corporate governance structures are set up to be independent of management. Previous papers on the subject have either examined firms committing egregious financial fraud (e.g., Dechow, Sloan and Sweeney (1996) and Beasley (1996))[6] or firms with incentives to overstate earnings (e.g., DeFond and Jiambalvo (1994), Teoh, Welch, and Wong (1998a, 1998b), and Parker (2000)). Thus, this paper lends support to

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[6]In a related area, Carcello and Neal (2000), using a sample of 217 manufacturing firms experiencing significant financial distress in 1994, find an inverse relation between the proportion of inside or gray directors on the audit committee and the likelihood of that firm receiving a going-concern report.

the exchanges' and SEC's assertions that for all trading companies, investors will be best served if their elected boards provide corporate governance mechanisms consistent with achieving unbiased, transparent financial statements.

II. NYSE and NASDAQ Rules for Audit Committees

Prior to December 1999, the stock exchanges and NASDAQ rules for audit committee composition were vague at best. Large, U.S. listed companies were required or encouraged to maintain audit committees with a majority or all members being "independent" of management. However, no definition of independence was given in the listing requirements.[7]

In December 1999 the NYSE and NASDAQ modified their requirements by mandating that all large listed U.S. companies should maintain audit committees with at least three directors, "all of whom have no relationship to the company that may interfere with the exercise of their independence from management and the company."[8] Simultaneously, the SEC adopted new rules to improve disclosures related to the functioning of corporate audit committees.[9] Excluded from the audit committee are

[7] The NYSE required each firm to have an audit committee "comprised solely of directors independent of management and free from any relationship that would interfere the exercise of independent judgment as a committee member." Absent in their listing standards was a definition of independence. The NASDAQ required an audit committee comprised of a majority of independent directors. Their definition of an independent director was a "person other than an officer or employee of the company or its subsidiaries or any other individual having a relationship which, in the opinion of the board of directors, would interfere with the exercise of independent judgment in carrying out the responsibilities of a director." The AMEX recommended but did not require listed companies to have audit committees.

[8] See NYSE Listing Guide, § 303.01(B)(2)(a).; NASDAQ Market Listing Requirements § 4310(c)(26)(B). See also SEC Release Numbers 34-42231, 34-42232 and 34-42233, "Adopting Changes to Listing Requirements for the NASD, AMEX, and NYSE Regarding Audit Committees."

[9] See Release Number 34-42266, "Adopting Rules Regarding Disclosure by Audit Committees, Including Discussions with Auditors Regarding Financial Statements."

directors who are current employees, former employees within the last three years, have cross compensation committee links, or are immediate family members of an executive officer. In addition, for the NASDAQ, a director who accepts non-director compensation from the firm in excess of $60,000 or whose employer receives at least $200,000 in any of the three past years is also excluded from serving the board's audit committee.

These rules, however, are not steadfast. Both the NYSE and NASDAQ allow firms to appoint one director who is not a current employee or an immediate family member of such employee to the audit committee if the board determines that membership on the committee by that individual is in the best interests of the corporation.[10] Thus, firms may maintain audit committees that are 67% (2/3) independent.

III. The Role of Board Audit Committees in Resolving Conflicts Between Management and Outside Auditors

By state law, the board of directors manages the business and affairs of the corporation.[11] Directors are voted in by their shareholders; thus, their fiduciary responsibilities are to the shareholders.

Boards can conduct their work through the full board or can delegate their authority to standing committees responsible to the board.[12] Beginning in the 1970's, the

[10] NASDAQ Rule 4310(c)(26)(B)(ii) allows the board under "limited circumstances" to appoint any non-current employee or family member to the audit committee. NYSE §303.01(B)(3)(b) gives the board broader discretion in appointing directors with business relationships to the firm. If the board determines that the independence of the director is not compromised by the business relationship, then that director may serve on the board's audit committee.

[11] For example, see Delaware General Corporate Law § 141(a).

[12] For example, Delaware General Corporate Law § 141(c) allows boards to set up committees.

New York and American exchanges and the NASDAQ have required or strongly recommended all large, U.S. listed firms to maintain board audit committees comprised of a majority or solely of independent directors. The audit committee's primary function is to oversee the financial reporting process of the firm. It achieves this goal by meeting regularly with the firm's outside auditors and internal financial managers to review the corporation's financial statements, audit process, and internal accounting controls.

According to the Blue Ribbon Committee Report, the audit committee is "first among equals" in the financial accounting process and is "the ultimate monitor" of this process (p. 7). While it is impossible for me to ascertain exactly what activities each committee undertakes, guidelines as to what they should be doing can be gleaned by reading their disclosures in the proxy statements, SAS No. 61 "Communications with Audit Committees", SAS No. 90 "Audit Committee Communications" and various Big-5 accounting firm publications dealing with best practices for audit committees. Basically, audit committees are encouraged to interact equally with management and the external auditor. Suggested areas of inquiry include management judgments, accounting estimates, audit adjustments, disagreements between management and the external auditor, and transactions between the firm and officers or employees of the firm. Audit committees are urged also to examine legal issues and government regulations as they pertain to the firm's financial statements and to assess the risk profile of the firm's activities and internal controls.

Although much emphasis has been put on the audit committee's role in preventing fraudulent accounting statements (i.e., malfeasance of management or the outside auditor), Magee and Tseng (1990), Dye (1991) and Antle and Nalebuff (1991) argue that

legitimate differences of opinion may exist between management and outside auditors in how to best apply GAAP. Antle and Nalebuff (1991) conclude that these differences will result either in the auditor being dismissed or, more likely, in a negotiated final financial report. DeFond and Subramanyan (1998) postulate that client litigation risk may result in auditors preferring more conservative accounting choices than management for clients they perceive to be more risky. They present evidence consistent with this assertion for a sample of firms experiencing auditor changes.[13] These papers suggest that the audit committee's role as arbiter between the two parties is to weigh and broker divergent views of both parties to produce ultimately a balanced, more accurate report. Equivalently, its role is to reduce the magnitude of positive or negative discretionary accruals.

The maintained hypothesis throughout this paper is that independent directors are best able to serve as active overseers of the financial accounting process. By being financially independent of management, independent directors have the ability to withstand pressure from the firm to manipulate earnings. Further, as Fama and Jensen (1983) assert and Shivadasani (1993) show, outside directors have incentives to develop reputations as experts in decision control and monitoring ability.[14,15]

[13] DeFond and Subramanyam (1998) find that discretionary accruals are income decreasing during the last year with the predecessor auditor but neutral with the successor auditor. Their results are consistent with the joint hypothesis that firms that changed auditors experienced high litigation risk and/or suffered from financial distress.

[14] Parker (2000) finds no evidence of a significant relation between the number of directorships held by outside directors and the overstatement of earnings. Parker's approach is different from this paper in that she examines only overstatements of earnings while I look at both over and understatements.

[15] A third possible reason could be that outside directors may be sued under federal law (Securities Act of 1933 and Securities and Exchange Act of 1934) for misstatements in financial statements. However, the indemnification statutes of state law (e.g., section 145 of the Delaware code and sections 722-726 of the New York code) make it unlikely that outside directors will be monetarily liable for non-fraudulent misstatements.

IV. Other Corporate Governance Mechanisms and Monitoring

4.1 Board Independence from the CEO

Several papers demonstrate an association between effective monitoring and the presence of outsiders on the board for firms experiencing gross failures of strategy and performance.[16] Other papers show a positive link between independent directors and the incidence of financial fraud (e.g., and Dechow, Sloan and Sweeney (1996), Beasley (1996)). These findings are consistent with the hypothesis that outside board members help alleviate agency conflicts between shareholders and upper management. These conflicts include managers maximizing their own utility at the expense of the shareholder through the consumption of perquisites, the selection of suboptimal investments,[17] or opportunistic financial statements. Shareholders benefit from director monitoring in that it maximizes their shareholder wealth and facilitates a liquid secondary market for their securities.

I test the assertion that a board's relative independence from management is negatively related to earnings manipulation. First, I use the incidence of outside directors on the entire board as a proxy for board independence. However, as Klein (1998) shows, board effectiveness and monitoring ability depend not only on board composition (e.g., percent of outside directors) but also on which board committees inside and outside directors occupy. Klein (1998, 2000a) provides evidence that a board whose CEO sits on its nominating committee or its executive compensation committee is less independent of the CEO. Shivdasani and Yermack (1999) find that boards are less apt to appoint new outside members if the CEO is a sitting member of the nominating committee.

[16] For example, see Brickley, Coles and Terry (1994), Byrd and Hickman (1992), Kosnik (1987), Rosenstein and Wyatt (1990) and Weisbach (1988).

[17] See Jensen and Meckling (1976) and Amihud and Lev (1981).

Furthermore, Klein (1998) reports that audit committees are less independent if the CEO is on the nominating committee. These findings suggest a positive relation between the CEO being on the board's nominating committee or compensation committee and earnings management.[18]

Klein (2000a) also presents evidence that CEOs sitting on their board's executive compensation committee receive higher salary and bonuses than CEOs not sitting on this key committee. This suggests that a CEO sitting on his board's compensation committee may be in a position to influence his pay package towards more earnings incentive bonuses. If this is true, then I would expect a positive relation between earnings management and whether the CEO is a member of this committee.

4.2 Relationship Investing

Relationship investing encompasses all situations in which a large blockholder takes on an active, interventionist role in the firm's economic processes.[19] For large U.S. companies, relationship investing is often achieved by giving a large non-management shareholder or one of his representatives a seat on the board of directors. Recent examples include Kirk Kerkorian (Chrysler), Warren Buffet (Salomon Brothers and Gillette), Chartwell Associates (Avon) and Lazard Frères (Polaroid). Being on the boards' audit committee gives these investors the opportunity to monitor the financial reporting process of the firm. I predict a negative relation between earnings management and the incidence of at

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[18] A direct way the CEO could influence earnings would be for him/her to sit on the board's audit committee. However, for regulatory and cosmetic reasons, few CEOs choose this most obvious route. Only two percent of the firms in my sample have the CEO as a sitting member of the audit committee.

[19] Relationship investing is a partial solution to the free-rider problem presented by Grossman and Hart (1980).

least one large (e.g., at least 5% shareholdings) non-inside director on the board's audit committee.[20]

4.3 Inside Director Shareholdings

Warfield, Wild and Wild (1995) find a negative relation between managerial stockholdings and the absolute value of discretionary accruals.[21] They interpret their results as being consistent with managerial shareholdings acting as a disciplining mechanism (Berle and Means (1932), Jensen and Meckling (1976)).[22] However, Aboody and Kasznik (2000) and Yermack (1997) show that CEOs manage investors' expectations downward prior to scheduled stock option award to increase the value of their awards. If inside directors or the CEO manage earnings to increase the value of their stock holdings, then there will be a positive relation between inside shareholdings and earnings management. Thus, no *a priori* prediction will be made.

V. Research Design

5.1 Sample Selection

Data about boards and board audit committees were hand-collected from SEC-filed proxy statements. The initial sample contained all U.S. firms listed on the S&P 500 as of March 31, 1992 and 1993 with annual shareholder meetings between July 1, 1991 and June

[20] This definition is narrower than other recent empirical studies, which do not place the restriction that the active shareholder must also have a seat on the board. For example, see Smith (1996), Strickland and Zenner (1996), and Wahal (1996). The main conclusion of these papers is that relationship investing (as defined in their studies) is not an effective means of increasing firm value.

[21] Warfield, Wild and Wild (1995) define management as officers, directors and beneficial owners. Discretionary accruals is the difference between the firm's current all noncash working capital and the previous five-year average of all noncash working capital.

[22] In a similar vein, Morck, Shleifer, and Vishny (1988), and McConnell and Servaes (1990) find a positive relation between Tobin's Q and inside director shareholdings.

30, 1993. Financial Institutions (SIC 6000 to 6999) were excluded due to their unique working capital structures.

Schedule 14A (the proxy statement) requires firms to disclose each director's name, business experience during the last five years, other current directorships, family relationships between any director, nominee or executive officer, significant current or proposed transactions with management, "significant business relationships" with the firm, and number of shares held.[23] Schedule 14A (Item 7(e)(1)) requires firms to state whether they have a standing audit committee. If such a committee exists, firms are required to disclose its functions and responsibilities, its members, and the number of times the committee met during the last fiscal year.

Financial data used to construct earnings, cash flows from operations, and accruals are from Compustat. For the cross-sectional non-discretionary accrual models, at least eight firms with the same two-digit SIC codes had to contain all the necessary data to be included. For the time-series non-discretionary accrual models, eight years of consecutive firm data and the "event" year's data had to be available. In addition, as explained below, several outliers were removed.

These requirements yield 687 observations for the cross-sectional accrual model tests and 683 firms for the time-series accrual model tests.

[23]Significant business transactions are defined by Items 404(a) and 404(b) of Regulation S-K of the 1934 Securities and Exchange Act. Item 404(a) specifies a threshold of $60,000 for a transaction to be considered significant. Item 404(b) defines "certain business relationships" to include significant payments to the firm in return for services or property, significant indebtedness by the firm, outside legal counseling, investment banking, consulting fees and other joint ventures.

5.2 Non-discretionary Accrual Models

Any test of earnings management is a joint test of (1) earnings management and (2) the non-discretionary accrual model used. Acceptance or rejection of the null hypothesis of no earnings management cannot be disentangled from the key methodological issue of how well the chosen non-discretionary accrual model separates total accruals into its discretionary and non-discretionary components.[24, 25]

Many recent empirical papers use a variant of the Jones (1991) non-discretionary accruals model, written as:

$$ACCR_{j,t}/TA_{j,t-1} = \alpha\ [1/ TA_{j,t-1}] + \beta\ [\Delta REV_{j,t}/ TA_{j,t-1}] + \gamma\ [PPE_{j,t}/ TA_{j,t-1}] + \varepsilon_{j,t} \qquad (1),$$

where $ACCR_{j,t}$ are total accruals for firm j in year t (measured as the difference between earnings before extraordinary items [Compustat item #18] and cash flows from operations [Compustat item #308], $TA_{j,t-1}$ are total assets [Compustat item #6], $\Delta REV_{j,t}$ is the change in net sales [Compustat item #12], and $PPE_{j,t}$ is gross property, plant and equipment [Compustat item #7].

The changes in revenues and PPE are used to control for nondiscretionary (i.e., economic-based) components in total accruals. β is predicted to be positive because changes in working capital accounts are expected to be positively related to changes in sales. The expected sign on γ is negative because high fixed assets should generate higher depreciation expenses and deferred taxes.

[24] Bernard and Skinner (1996) and Dechow and Skinner (2000) contain excellent discussions of this issue.

[25] Joint hypotheses are quite common in both the accounting and financial literature. For example, any test of efficient markets is a joint test of (1) whether the market is efficient to information and (2) whether the expected returns model is an accurate representation of how the market prices its securities.

For the cross-sectional Jones model, equation (1) is estimated separately each year for all firms on Compustat having the same two-digit SIC code.[26] Industries with less than eight observations are dropped from the sample. The number of firms used in each industry model ranges from eight to three hundred fifteen. The time-series non-discretionary accruals model is estimated separately for each firm in the S&P 500 sample.[27] To be included, eight consecutive observations from year t-1 through year t-9 had to be available.

Discretionary or unexpected accruals for each sample firm j is defined as:

$$DAC_{j,t} = ACCR_{j,t}/TA_{j,t-1} - \{\acute{a}\ [1/ TA_{j,t-1}] + \hat{a}\ [\ddot{A}REV_{j,t}/ TA_{j,t-1}] + \tilde{a}\ [PPE_{j,t}/ TA_{j,t-1}]\} \quad (2),$$

where $\acute{a}$, $\hat{a}$, and $\tilde{a}$ are the fitted coefficients from equation (1).

Dechow, Sloan and Sweeney (1995) propose a "modified" Jones model in which:

$$DAC_{j,t} = ACCR_{j,t}/TA_{j,t-1} - \{\acute{a}\ [1/ TA_{j,t-1}] + \hat{a}\ [\ddot{A}REV_{j,t} - \ddot{A}REC_{j,t} / TA_{j,t-1}] + \tilde{a}\ [PPE_{j,t}/ TA_{j,t1}]\} \quad (3),$$

where $\acute{a}$, $\hat{a}$, and $\tilde{a}$ are those obtained from the original Jones model and $\ddot{A}REC_{j,t}$ is the change in receivables for year t.

Several recent papers have tested the efficacy of the Jones model vis-à-vis other non-discretionary accruals models. Dechow, Sloan and Sweeney (1995) and Guay, Kothari, and Watts (1996) contrast the Jones and modified Jones time-series models with three other time-series models.[28] Dechow, Sloan and Sweeney (1995) conclude that the time-series Jones models is the most statistically powerful of the four models, with a

[26] Recent empirical studies using the cross-sectional Jones model include DeFond and Jiambalvo (1994), Subramanyam (1996), DeFond and Subramanyam (1998), Becker, DeFond, Jiambalvo, and Subramanyam (1998), Teoh, Welch, and Wong (1998a, 1998b), Peasnall, Pope and Young (1998), Guidry, and Leone and Rock (1999) and DuCharme, Malatesta and Sefcik (2000).

[27] Recent empirical studies using the time-series Jones model include Han and Wang (1998) and Erickson and Wang (1999).

slight nod towards their modified version. Guay, Kothari and Watts (1996) come to similar conclusions although they temper their remarks by saying that none of the models provides an unambiguous classification of discretionary and non-discretionary accruals. Bartov, Gul and Tsui (2000) compare the cross-sectional Jones and modified Jones models with the other four models (the Jones and modified time-series model included). They conclude that the cross-sectional original Jones model is the only model consistently able to detect earnings management.

Bartov, Gul and Tsui's (2000) results suggest that the cross-sectional original Jones model statistically dominates its modified form and its time-series counterparts. As Bartov, Gul and Tsui (2000), and Subramanyam (1996) point out, the cross-sectional version of the Jones model has statistical properties that make it better, ex ante, than its time-series cousin. First, the number of observations per model is considerably higher under the cross-sectional version. This increases the precision of the estimates. Second, by not imposing availability of time-series data, the cross-sectional sample is less subject to survivorship bias and allows the researcher to include firms with short histories. Third, misspecification of the coefficients due to non-stationarity is not an issue for the time-series version.

Nevertheless, I computed discretionary accruals for the original and modified times-series and cross-sectional Jones models to compare their properties before conducting my statistical tests.[29] Two basic diagnostics are done. First, I examine the coefficients, $\acute{a}$, $\hat{a}$, and $\tilde{a}$. On average, $\acute{a}$ should be zero; $\hat{a}$ should be positive; and $\tilde{a}$ should

[28] The models are referred to as the Healy (1985) model, DeAngelo (1986) model, and the industry model proposed by Dechow and Sloan (1991).

be negative. Second, I examine the discretionary accruals. Since the parent population is the S&P 500, I expect that, on average, the discretionary accruals to be zero. That is, earnings manipulation may exist within the sample but, on average, the positive and negative manipulations should cancel each other out.

Table 1 contains summary statistics for the estimated coefficients, $\acute{a}$, $\hat{a}$, and $\tilde{a}$. The parameters are better specified for the cross-sectional model than for the time-series model. First, $\acute{a}$ is statistically different from zero at the .01 level for the time-series model but insignificantly different from zero at conventional levels for the cross-sectional model. Second, the standard deviations of the parameters are much lower for the cross-sectional model. Third, the percentage of $\hat{a}$ and $\tilde{a}$ coefficients with the correct predicted sign is greater for the cross-sectional model vis-à-vis the time-series version.[30]

Table 2 reports descriptive samples for the entire sample. As the middle rows illustrate, the average discretionary accrual for the original and modified Jones cross-sectional models are .003 and .003 respectively. The average discretionary accruals for the corresponding time-series models are -988 and –988, respectively. It should be noted that extreme outliers are absent. Although not shown in the table, the t-statistics testing whether the mean DACs are zero are 0.18 (0.20) for the original (modified) cross-sectional models and –10.91 (-10.91) for the original (modified) time-series models. Thus, the cross-sectional models' DACs are insignificantly different from zero whereas

[29] The modified Jones model, as proposed by Dechow, Sloan and Sweeney (1995) uses the same parameters as the original model in computing the DACs.

[30] Subramanyam (1996) and Bartov, Gul, and Tsui (2000) show similar results when contrasting the two models.

the time-series models' DACs are significantly different from zero at the .01 level. Similar results are found using the non-parametric signed rank test.[31]

5.3 Descriptive Statistics of Earnings and Accruals

Table 2 presents other descriptive statistics for the S&P 500 sample. Net income is positive for 84% of the sample and cash flows from operations is positive 97% of the times. Total accruals, defined as the difference between the two, are negative for 90% of the firms. Subramanyam (1996), who uses a similarly constructed sample, reports comparable averages and percentages for his sample of 21,631 firm-years over the 1973-1993 period.

5.4 Corporate Governance Characteristics

Consistent with prior research, directors are classified as insiders, outsiders, or affiliated ("gray") with the firm. Insiders are current employees of the company. Outsiders have no ties to the firm beyond being a board member. Consistent with the NYSE and NASDAQ listing requirements, affiliated directors are past employees, relatives of the CEO, or have significant transactions and/or business relationships with the firm as defined by Items 404(a) and (b) of Regulation S-X.. Directors on interlocking boards are also defined as affiliates. Consistent with Item 402(j)(3)(ii), interlocks are defined as those situations in which an inside director serves on a non-inside director's board.

Table 3 reports data on board and audit committee composition. On average, 58.4% of board members and 79.6% of audit committee members are outsiders. While no

[31] The signed rank test that the median DAC is zero yield p-statistics of .12 (.14) for the original (modified) cross-sectional Jones models and .01 (.01) for the original (modified) Jones time-series.

firm has a completely independent board, 73.8% of the firms in the sample have boards in which the majority of directors are independent of management.[32] In contrast, 43.4% of audit committees are comprised of outside directors only and 86.7% have a majority of independent directors.

Over fifty-two percent of the firms have either the CEO on the board nominating committee or no nominating committee.[33] Over nine percent have the CEO on the compensation committee or have no compensation committee.[34] Almost two percent have a 5% non-management shareholder on the audit committee.

VI. Discretionary Accruals and Corporate Governance Factors

This section contains the empirical results. Sections 6.1 and 6.2 describe some of the specifications and definitions used in the models. Section 6.3 contains univariate models associating the absolute value of discretionary accruals with board and audit committee composition and other board characteristics. Section 6.4 presents multivariate models encompassing both corporate governance factors and other factors shown in the literature to be related to discretionary accruals and board/audit committee composition. Section 6.5 has sensitivity analyses.

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[32] In 1992 and today, the NYSE, AMEX, and the NASDAQ required domestic listed firms to have a minimum of two "outside" or "independent" directors on their boards.

[33] If no committee exists, then the board itself acts that committee. For these firms, the CEO, *de facto*, is a member of the committee.

[34] There are no direct restrictions on the CEO sitting on his/her board's compensation committee. Prior to 1994, there were no IRS restrictions tying the CEO's salary and bonus to the CEO sitting on his board's executive compensation committee. Prior to October 1993, disclosures in the proxy statement regarding executive compensation and the compensation committee were fuzzy, scattered, and not particularly informative.

6.1 Dependent Variable

Following prior earnings management studies (see e.g., Healy (1985), DeAngelo (1986), Jones (1991) and Bartov, Gul and Tsui (2000)), I assume, with the usual caveats presented in the last section, that high positive or negative discretionary accruals indicate earnings manipulations. Incentives for management to post negative discretionary accruals (i.e., lower earnings) include lowering the purchase price in management buyouts (Perry and Williams (1994), managing earnings-based bonuses (e.g., Healy (1985), Houlthausen, Larcker and Sloan (1995), and Guidry, Leone and Rock (1999)) and avoiding regulatory actions (e.g., Jones (1991), Cahan (1992), and Key Galligan (1997)). Some documented motivations behind positive discretionary (i.e., income-increasing) accruals are to raise stock prices for seasoned equity offerings [Rangan (1998), Teoh, Welch and Wong (1998a)], for initial public offering [Teoh, Welch and Wong (1998b), DuCharme, Malatesta and Secfik (2000)] and for stock-financed acquisitions [Erickson and Wang (1998)], to meet analysts' expectations [e.g., Burgstahler and Eames (1998) and Kasznik (1999)], and to avoid debt covenant violations [e.g., DeFond and Jiambalvo (1994), Parker (2000)].

Since discretionary accruals may be positive or negative, I use the absolute value of discretionary accruals as my dependent variable.[35] Since this variable is bounded by zero, OLS will yield inefficient coefficients due to the dependent variable having a non-normal distribution.[36] Fitting a gamma function to the data reveals that a lognormal

[35]Other studies using the absolute value of discretionary accruals as a proxy for the combined effect of income-increasing and income-decreasing earnings management include Warfield, Wild, and Wild (1995) and Becker, DeFond, Jiambalvo and Subramanyam (1998). See also Healy and Wahlen (2000), who assert that the expected frequencies of finding positive or negative unexpected accruals are 50% for each group.

[36] The distribution has a skewness of 9.79 and a kurtosis of 109.46. In addition, the Kolomogorov D statistic rejects normality at the .0001 level.

transformation best approximates its shape. Thus, I estimate the "regression" coefficients by maximum likelihood using a Newton-Raphson algorithm on a lognormal dependent variable.

6.2 Defining Audit Committee and Board Independence

One maintained hypothesis is that more independent audit committees and/or boards are associated with less earnings manipulation. One issue is determining independence. This is not a trivial exercise as the following discussion illustrates.

To determine independence, three definitions are used. The first is to define audit or board independence as the percentage of outside directors on the audit committee or on the board. This is a common definition used in the academic literature (e.g., Beasley (1996)). However, as Hermalin and Weisbach (1991) show, the relation between economic outcomes (i.e., Tobin's Q for Hermalin and Weisbach) and board independence may not be linear.

A second path is to follow the NASDAQ and NYSE's guidelines and consider an audit committee independent only if all directors are independent of inside management.[37] Under this definition, audit committees can function independently if and only if all members are free from managerial influence.

A third definition of board or audit committee independence is for a majority of members to be independent of management. Dechow, Sloan, and Sweeney (1996), for example, define a board as being inside-dominated if at least 50% of board members are

[37] Since no boards are comprised solely of outside directors, this definition is not feasible for the entire board.

firm officers. The rationale behind this metric is that the majority rule will dominate the board's or committee's actions.

The differences among definitions, particularly between the 100% and 51% rules, can have supply effects on different firms. Yermack (1996) argues and shows that firms with smaller boards (i.e., under 10 directors) are better performers. Thus, firms, in general, will be constrained as to board size. As Fama and Jensen (1983) argue and Klein (1998) demonstrates, firms benefit greatly by having insiders on the board since top managers bring an expertise about the organization to the board's top level decision making apparatus. Further, Klein (2000b) shows that the degree of audit committee independence is both a function of the independence of the entire board and economic determinants. These papers suggest that it may be costly for companies to maintain 100% independent audit committees. Thus, using the 51% (majority) definition may be a desirable alternative to many firms.

6.3 Univariate Models

Table 4 presents coefficients for univariate models. As Models 1-5 show, significantly negative coefficients are found only when independence is defined as a majority of independent board (Bd51%, p=.05) or audit committee (Aud51%, p=.10) members. In contrast, no significant correlations are found for the continuous variables or for the 100% outside audit committee definition. To check the sensitivity of the fifty percent cutoff, I re-estimated models 1 and 4 using cutoffs of 40% and 60%, respectively. None of the coefficients were significant at the .10 level. Taken as a whole, these results

suggest that a majority outside membership is the critical threshold for determining the relationship between director independence and earnings manipulation.

Models 6-9 examine the univariate relation between other corporate governance characteristics and earnings management. As models 6 and 7 show, the absolute value of discretionary accruals is positively related to whether the CEO is on the board's nominating committee (p=.05) or on the board's compensation committee (p=.01). Thus, earnings manipulation appears to be positively correlated with the CEO's power over board matters. In model 8, earnings management is negatively related to whether a large blockholder sits on the board's audit committee (p=.05). This supports the relationship investing hypothesis. Finally, in model 9, the coefficient on the percent of inside shareholdings is positive at the .10 level, suggesting a positive association between earnings management and inside directors' shareholdings.

6.4 Multivariate Models

Table 5 presents multivariate models relating board characteristics to discretionary accruals. For these models, I control for other factors that may be related to earnings management or board/audit committee independence. As Bartov, Gul and Tsui (2000) show, failure to control for confounding factors may result in falsely rejecting the null hypothesis of no earnings management when in fact the null is true. Explanatory variables capturing earnings management are extreme earnings performance (the absolute change in the previous year's income before extraordinary items divided by total assets), financial leverage (total debt divided by total assets), and political costs (log of beginning

year's assets).[38] These variables were found to be significantly related to earnings management by Warfield, Wild, and Wild (1995), Dechow, Sloan and Sweeney (1995), DeFond and Jiambalvo (1994), Becker, DeFond, Jiambalvo and Subramanyam (1998), Dechow, Sloan and Sweeney (1996) and Bartov, Gul and Tsui (2000). Explanatory variables capturing variations in audit committee composition are market-to-book ratios, past negative earnings (two or more previous consecutive years), and firm size (log of beginning year's assets). Klein (2000b) finds evidence that these variables are related to audit and board committee compositions.

As Table 5 shows, earnings manipulation is negatively related at the .05 level to whether the board's audit committee has a majority of independent directors. This supports the view that audit committee independence is related to earnings management. However, contrary to the intentions of the new guidelines promulgated by the exchanges, there appears to be no meaningful relation between earnings management and having an audit committee comprised solely of independent auditors.

As Table 5 also shows, for each of the five models, having the CEO on the board's compensation committee yields a significantly (at the .05 level) positive coefficient. In addition, the coefficient on having a 5% blockholder on the audit committee is significantly negative at the .05 level for each of the equations. These results support the view that board characteristics geared towards producing a more independent and active corporate governance environment results in less earnings management.

[38] The correlation between the log of total assets and the signed discretionary accrual is -.01 (p=.80). The correlation between the log of total assets and the unsigned (absolute value) discretionary accrual is -.22

6.5 Sensitivity Analyses

The multivariate models in Table 5 suggest that earning management is correlated with various board and audit committee characteristics. In this section, I conduct several sensitivity analyses to determine the robustness of the results.

First, I use the modified cross-sectional Jones model presented in equation (3) of this paper. The univariate and multivariate results with this specification are almost identical to those presented in Table 5. For example, the reestimated coefficients and χ^2 values for models 3 (Aud100%) and 4 (Aud51%) in Table 5 are 0.04 (χ^2 = 0.09) and -0.39 (χ^2 = 5.58), respectively. Qualitatively similar findings are found for the other variables in Tables 4 and 5.

Second, in Tables 4 and 5, I use inside director shareholdings as a board characteristic variable. Table 4 reported a significantly positive coefficient (p=.06) in the univariate model but Table 5 reported insignificant coefficients (p>.10) in the multivariate analyses. To examine the robustness of this variable, I re-estimate the models using CEO's shareholdings or all-director shareholdings as substitute variables.

For the univariate models, the coefficients and p-values are 5.89 (p=.001) for CEO shareholdings and 0.23 (p=.43) for all-director shareholdings. Thus, the coefficient reported in Table 4 appears to be driven primarily by the CEO shareholdings. It also suggests that CEOs may use earnings management as a means to increase their share values, an interpretation consistent with Aboody and Kasznik (2000) and with Yermack (1997).

(p=.01).

In the multivariate models, using all-director shareholdings instead of inside director shareholdings has no marked effect. The coefficients on all-director shareholdings, like inside director shareholdings, are insignificantly different from zero. Nor are the coefficients or significance levels for the other independent variables in the models affected. Using CEO shareholdings, however, produces two results distinct from those presented in Table 5. First, the coefficients for CEO shareholdings are significantly positive at the .01 or .02 levels for each of the five models. Second, including CEO shareholdings increases the p-values of the (still positive) coefficient CEO on Compensation Committee to insignificant levels. Table 6 contains summary statistics for this set of models. I interpret these findings as additional evidence that given the opportunity, CEOs will manipulate earnings to increase their total compensation.

Third, I broaden the relationship-investing variable by lowering the threshold for the percentage of shares that the non-management director sitting on the audit committee must hold. In Tables 4 and 5, I require a 5% stake; 1.7% of firms in the sample had type of shareholder. The coefficients are around -0.95, with significance levels at .02 or .03. Reducing the stake sequentially from 4% to 3% to 2% increases the incidence of the relationship investor to 2.6%, 2.8%, and 3.6%, respectively. As expected, the significance levels, in general, diminish alongside the stake. For the 2% definition, the p-values hover around .30; for the 3% definition, the p-values are around .09; for the 4% definition, the p-values come up to around .02. The corresponding coefficients are approximately -0.30, -0.60, and -0.85, respectively.

VI. Summary and Conclusions

This study examines whether audit committee and board characteristics are related to earnings management by the firm. The motivation behind this study is the implicit assertion by the SEC, the NYSE and the NASDAQ that earnings management and poor corporate governance mechanisms are positively related.

A non-linear negative relation is found between audit committee independence and earnings manipulation. Specifically, a significant relation is found only when the audit committee has less than a majority of independent directors. Contravene to the new regulations, no significant association is found between earnings management and the more stringent requirement of 100% audit committee independence.

Empirical evidence is provided that other corporate governance characteristics are related to earnings management. Earnings management is positively related to whether the CEO sits on the board's compensation committee. It is negatively related to the CEO's shareholdings and to whether a large outside shareholder sits on the board's audit committee. These results suggest that boards structured to be more independent of the CEO may be more effective in monitoring the corporate financial accounting process.

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Table 1

Comparison of Time-Series vs. Cross-Sectional Expectation Models For Accruals

Model: $ACCR_{j,t}/TA_{j,t-1} = á\,[1/\,TA_{j,t-1}] + â\,[ÄREV_{j,t}/\,TA_{j,t-1}] + ã\,[PPE_{j,t}/\,TA_{j,t-1}] + å_{j,t}$

Model[a]	Mean	Std. Dev.	Median	Minimum	Maximum	%Positive	T: Mean=0
Estimate of á							
Jones – CS	-0.01	0.42	0.00	-5.70	4.89	92%	-0.90
Jones - TS	986.35	2,364.11	226.42	-3,367.22	18,965.42	89	10.90*
Estimate of â							
Jones – CS	0.03	0.10	0.02	-1.07	0.53	75	7.83*
Jones - TS	0.08	0.47	0.06	-3.32	3.04	64	4.63*
Estimate of ã							
Jones – CS	-0.08	0.06	-0.08	-0.25	0.36	7	-15.84*
Jones - TS	-0.24	0.40	-0.23	-3.57	3.39	11	-32.02*

[a]Jones – CS is the cross-sectional Jones model. Jones – TS is the time-series Jones model.

*significant at the .01 level.

Notes - ACCR is total accruals; TA is total assets; REV is sales revenues; PPE is gross Property, Plant and Equipment. The sample for the cross-sectional Jones model is from the Standard and Poor's Compustat Industrial Annual and Industrial Research Annual files. To be included, at least eight firms with the same two-digit SIC codes had to be available each year. The sample for the time-series Jones model comes from the S&P 500 listings for March 1992 and 1993. To be included, each firm had to have eight observations on the Standard and Poor's Compustat Industrial Annual and Industrial Research Annual files from one-year prior to the designated year through nine years prior.

Table 2

Descriptive Statistics for Sample of S&P 500 Firms

Variable	Mean	Std. Dev.	Median	Minimum	Maximum	%Positive
Net Income	.06	.08	.05	-.30	.48	84%
Operating Cash Flows	.12	.08	.11	-.13	.48	97
Total Accruals	-.06	.06	-.06	-.41	.14	10
Abs(Total Accruals)	.07	.05	.06	.00	.41	100
Assets	8,960	21,352	3,145	179	174,429	100
Discretionary Accruals						
Jones – CS	.003	.42	-.003	-4.76	5.63	48
Jones – TS	-988	2365	-227	-18,965	3,367	12
Modified Jones – CS	.003	.42	-.003	-4.75	6.63	48
Modified Jones – TS	-988	2365	-226	-18,965	3,367	12
Abs(Discretionary Accruals)						
Jones – CS	.11	.41	.04	.00003	5.63	100
Jones – TS	1,093	2318	274	.003	18,965	100
Modified Jones – CS	.11	.41	.04	.00002	5.63	100
Modified Jones – TS	1,093	2319	275	.0127	18,965	100

Notes – The sample consists of firms listed on the S&P 500 for 1992 and 1993. Net Income is net income before extraordinary items (Compustat item # 18). Operating cash flows is from the cash flows statement (Compustat item # 308). Total accruals is the difference between net income and operating cash flows. Abs is the absolute value. Assets is the total assets (Compustat item # 6). Discretionary Accruals is the difference between total accruals and non-discretionary accruals calculated using the Jones cross-sectional model (Jones – CS) or the Jones times-series model (Jones – TS). All variables are scaled by total assets.

Table 3

Descriptive Corporate Governance Data

	Whole Board	Audit Committee
Percentage of Directors who are:		
Insiders	22.5%	1.4%
Outsiders	58.4	79.6
Affiliates	19.1	19.0
Percentage of Firms with:		
100% Outside Directors	0%	43.4%
Majority of Outside Directors	73.8	86.7
CEO on Nominating Committee	52.1	NA
CEO on Compensation Committee	9.2	NA
5% Outside Director on Audit Committee	NA	1.7

Sample is for 687 U.S. firms with audit committees listed on the S&P 500 as of March 31, 1992 and 1993 with annual shareholder meetings between July 1, 1991 and June 30, 1993. Financial institutions and firms with missing Compustat data are excluded.

Table 4

Univariate Models of Absolute Values of Discretionary Accruals on
Board and Audit Committee Composition (parameter estimates and $\div^2$-Values)

	Intercept	Bd51%	%OUT	Aud100%	Aud51%	%AUDOUT	CEO on Nom Comm.	CEO on Comp Comm.	5%Block. On Aud. Comm.	%Inside Shares
Model 1	-2.47 (465.11)[a]	-0.30 (5.17)[b]								
Model 2	-2.56 (155.52)[a]		-0.22 (0.42)							
Model 3	-2.69 (1147.69)[a]			0.02 (0.02)						
Model 4	-2.44 (233.66)[a]				-0.29 (2.97)[c]					
Model 5	-2.62 (151.65)[a]					-0.09 (0.12)				
Model 6	-2.84 (1088.78)[a]						0.28 (6.06)[b]			
Model 7	-2.69 (1893.44)[a]							0.59 (8.95)[a]		
Model 8	-2.68 (1875.49)[a]								-0.94 (4.57)[b]	
Model 9	-2.75 (1641.29)[a]									2.08 (3.73)[c]

(a), (b), (c) = significant at the .01, .05, and .10 level respectively.

Notes – The dependent variable in all models is the absolute value of discretionary accruals as determined by the cross-sectional Jones model. The dependent variable is modeled as a lognormal distribution. The parameters are estimated by maximum likelihood using a Newton-Raphson algorithm.

Bd51% takes on the value of one if the firm's board has at least a majority of outside directors, and zero otherwise. %OUT is the percentage of outsiders on the firm's board. Aud100% takes on the value of one if the firm's audit committee has outside directors only, and zero otherwise. Aud51% takes on the value of one if the firm's audit committee has at least a majority of outside directors, and zero otherwise. %AUDOUT is the percentage of outsiders on the firm's audit committee. CEO on Nom. Comm. and CEO on Comp. Comm. are indicators if the CEO is a sitting member of either committee respectively or if no committee exists. 5%Block. on Aud. Comm. is an indicator if a non-inside 5% blockholder sits on the board's audit committee. %Ins. Shrs. is the percentage of shares owned by inside directors.

Table 5

Multivariate Models of Absolute Values of Discretionary Accruals
on Board and Audit Committee Composition
(parameter estimates and $\div^2$-Values)

	Model 1	Model 2	Model 3	Model 4	Model 5
Intercept	-1.77 (17.32)[a]	-2.07 (20.88)[a]	-1.93 (20.71)[a]	-1.57 (13.26)[a]	-1.84 (16.15)[a]
Bd51%	-0.15 (1.23)				
%OUT		0.34 (0.82)			
Aud100%			0.04 (0.10)		
Aud51%				-0.39 (5.60)[b]	
%AUDOUT					-0.06 (0.06)
MV/BV	-0.001 (0.01)	0.001 (0.01)	0.001 (0.003)	-0.0002 (0.0005)	0.0003 (0.001)
Abs(ÄNI)	5.60 (12.09)[a]	5.43 (11.41)[a]	5.49 (11.67)[a]	5.55 (12.23)[a]	5.54 (11.92)[a]
Neg. NI	0.29 (1.46)	0.30 (1.54)	0.30 (1.54)	0.32 (1.77)	0.29 (1.45)
Debt	0.12 (0.09)	0.04 (0.01)	0.09 (0.05)	0.13 (0.11)	0.09 (0.05)
%Ins Shrs.	0.34 (0.09)	0.83 (0.52)	0.61 (0.30)	0.50 (0.20)	0.56 (0.25)
CEO on Nom. Committee	0.16 (1.76)	0.18 (2.26)	0.17 (1.98)	0.23 (3.44)[c]	0.17 (2.03)
CEO on Comp. Committee	0.38 (3.01)[c]	0.45 (4.42)[b]	0.44 (4.12)[b]	0.42 (3.83)[b]	0.42 (3.89)[b]
5% Blockholder On Audit Comm.	-0.91 (4.43)[b]	-1.01 (5.37)[b]	-0.96 (4.99)[b]	-0.94 (4.89)[b]	-0.96 (4.91)[b]
Log(Assets)	-0.14 (9.46)[a]	-0.14 (9.81)[a]	-0.14 (9.19)[a]	-0.14 (10.05)[a]	-0.14 (9.51)[a]

(a), (b), (c) = significant at the .01, .05, and .10 level respectively.

Notes – The dependent variable is the absolute value of discretionary accruals as measured by the cross-sectional Jones model. The dependent variable is modeled as a lognormal distribution. The parameters are estimated by maximum likelihood using a Newton-Raphson algorithm.

Bd51% takes on the value of one if the firm's board has at least a majority of outside directors, and zero otherwise. %OUT is the percentage of outsiders on the firm's board. Aud100% takes on the value of one if the firm's audit committee has outside directors only, and zero otherwise. Aud51% takes on the value of one if the firm's audit committee has at least a majority of outside directors, and zero otherwise. %AUDOUT is the percentage of outsiders on the firm's audit committee.

MV/BV is the market value of the total firm over assets, measured at the beginning of the fiscal year. Abs(ÄNI) is the absolute value of the change in net income between years t-1 and t. Neg. NI. is an indicator if the firm had two or more consecutive years of negative income, ending on the fiscal year prior to the shareholders' meeting. Debt is long-term debt divided by last year's assets. %Ins. Shrs. is the percentage of shares owned by inside directors. CEO on Nom. Committee and CEO on Comp. Committee are indicators if the CEO is a sitting member of either committee, respectively or if there is no committee. 5% Blockholder on Audit Comm. is an indicator if a non-inside 5% blockholder sits on the board's audit committee. Log(Assets) is the natural log of the book value of assets.

Table 6

Sensitivity Analyses Using %Shares Owned by CEO Instead of
%Shares Owned by Inside Shareholders
(parameter estimates and $\div^2$-Values)

	Model 1	Model 2	Model 3	Model 4	Model 5
Intercept	-1.97 (21.76)[a]	-2.28 (26.23)[a]	-2.09 (24.83)[a]	-1.72 (16.28)[a]	-2.00 (19.37)[a]
Bd51%	-0.11 (0.67)				
%OUT		0.46 (1.62)			
Aud100%			0.05 (0.19)		
Aud51%				-0.40 (5.95)[b]	
%AUDOUT					-0.07 (0.07)
MV/BV	0.001 (0.004)	0.003 (0.06)	0.002 (0.03)	0.001 (0.01)	0.001 (0.02)
Abs(ÄNI)	5.74 (12.97)[a]	5.54 (12.08)[a]	5.64 (12.50)[a]	5.75 (13.36)[a]	5.71 (12.86)[a]
Neg. NI	0.31 (1.71)	0.32 (1.80)	0.32 (1.81)	0.34 (2.04)	0.31 (1.69)
Debt	0.04 (0.01)	-0.05 (0.02)	0.02 (0.003)	0.06 (0.03)	0.02 (0.002)
%CEO shares	4.22 (6.04)[a]	4.78 (7.62)[a]	4.45 (6.81)[a]	4.49 (6.97)[a]	4.41 (6.69)[a]
CEO on Nom. Committee	0.13 (1.11)	0.15 (1.60)	0.13 (1.25)	0.19 (2.44)	0.14 (1.29)
CEO on Comp. Committee	0.20 (0.87)	0.28 (1.60)	0.25 (1.35)	0.21 (0.99)	0.23 (1.14)
5% Blockholder On Audit Comm.	-0.99 (5.24)[b]	-1.09 (6.34)[b]	-1.03 (5.73)[b]	-1.01 (5.64)[b]	-1.02 (5.64)[b]
Log(Assets)	-0.12 (7.40)[a]	-0.13 (8.07)[a]	-0.12 (7.14)[a]	-0.13 (7.89)[a]	-0.13 (7.46)[a]

[(a), (b), (c)] = significant at the .01, .05, and .10 level respectively.

Notes – The dependent variable is the absolute value of discretionary accruals as determined by the cross-sectional Jones model. The dependent variable is modeled as a lognormal distribution. The parameters are estimated by maximum likelihood using a Newton-Raphson algorithm.

Bd51% takes on the value of one if the firm's board has at least a majority of outside directors, and zero otherwise. %OUT is the percentage of outsiders on the firm's board. Aud100% takes on the value of one if the firm's audit committee has outside directors only, and zero otherwise. Aud51% takes on the value of one if the firm's audit committee has at least a majority of outside directors, and zero otherwise. %AUDOUT is the percentage of outsiders on the firm's audit committee.

MV/BV is the market value of the total firm over assets, measured at the beginning of the fiscal year. Abs(ÄNI) is the absolute value of the change in net income between years t-1 and t. Neg. NI is an indicator if the firm had two or more consecutive years of negative income, ending on the fiscal year prior to the shareholders' meeting. Debt is long-term debt divided by last year's assets. %Ins. Shrs. is the percentage of shares owned by inside directors. CEO on Nom. Committee and CEO on Comp. Committee are indicators if the CEO is a sitting member of either committee, respectively. 5% Blockholder on Audit Comm. is an indicator if a non-inside 5% blockholder sits on the board's audit committee. Log(Assets) is the natural log of the book value of assets.