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"Causes and Consequences of Variations in Audit Committee Composition"

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Abstract

This paper examines and finds systematic economic factors behind variations in audit committee composition. Specifically, audit committee independence is positively related to the informativeness of accounting data in valuation and negatively related to the degree of bargaining power that the CEO commands over the board. In contrast, no systematic relation is found between audit committee composition and the degree of contracting between shareholders and senior claimants. This paper also examines and finds economic benefits of firms having independent audit committees. Specifically, CEO cash compensation and the number of audit committee meetings are negatively (positively) related to audit committee independence, respectively. Finally, consistent with the Blue Ribbon Committee's assertion that audit committee composition is but one piece in the firm's overall corporate governance, a negative relation is found between audit committee independence and alternative corporate governance mechanisms.

Causes and Consequences of Variations in Audit Committee Composition

I. Introduction

On September 28, 1998, Arthur Levitt, Chairman of the SEC, announced that the NYSE and NASDAQ agreed to sponsor a "blue-ribbon" panel to "develop a series of far-ranging recommendations" intended to allow the audit committee to "get the right people to do the right things and ask the right questions."[1] Chairman Levitt's announcement was in response to the perceived notion that many audit committees were failing to perform their duties of independent oversight over their firms' financial reporting process. Publicized examples of gross failures in the reporting process prior to Chairman Levitt's announcements were Bausch & Lomb, Woolworth, Cendant, and Sunbeam. Each of these companies was publicly-traded and each had an audit committee.[2]

A primary explanation given for the apparent widespread failure of audit committees to perform their functions is that their members are not independent of management, and thus, are unable or unwilling to ask probing questions. In support of this conjecture, Klein (1998) and Verschoor (1993) report that many audit committees of publicly traded companies are not comprised solely of independent, outside directors. Their findings are not surprising given that the New York Stock Exchange (NYSE), American Stock Exchange, and NASDAQ broadly define the term "independent director" in their exchange requirements concerning the establishment and composition of audit committees.[3] Similarly, state

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[1] Remarks by Chairman Aruthur Levitt Securities and Exchange Commission, "The 'Numbers Game'", NYU Center for Law and Business, New York, New York, September 28, 1998 (available on the SEC.gov website).

[2] The problem of audit committee effectiveness is not a new issue to the SEC; in 1987, the Treadway Commission reported that 69% of the public companies involved in the fraudulent financial reporting cases brought by the SEC from 1981 to 1986 had audit committees (1987, p. 40).

[3] Since July 1, 1978, the New York Stock Exchange requires each listing domestic corporation to have an audit committee "comprised solely of directors independent of management.…" Beginning February 1, 1989, NASDAQ requires each issuer to "establish and maintain an audit committee, a majority of members of which

corporate law and federal securities law provide no regulations on audit committee composition.

In response to these criticisms and findings, the Blue-Ribbon Committee ("The Committee") adopted a stringent definition of independence for purposes of service on the audit committee and recommended that each member of the audit committee should be an independent director within the aforementioned definition.[4] This recommendation is similar to previous calls for audit committee independence, most notably by the SEC, the Business Roundtable, CalPers, and the Treadway Commission.[5]

However, The Committee softened its recommendation by noting that an independent audit committee is but one part of a well-functioning corporate governance system. As the report states:

"We [The Committee] cannot, however, suggest a single appropriate template for oversight by all audit committees. "Just as 'one size doesn't fit all' when it comes to board governance, 'one size can't fit all' audit committees. Within broad parameters, each audit committee should evolve and develop its own guidelines suited to itself and its corporation." (1999, p. 7).

The primary purpose of this paper is to examine whether, as the statement intimates, audit committee composition varies systematically across firms. Using a supply and demand framework, I make predictions about the relation between the degree of audit committee independence and economic factors for a sample of over 400 publicly-traded

shall be independent directors." The American Stock Exchange recommends standing audit committees composed solely of independent directors.

[4] See recommendations 1 and 2 of the "Report and Recommendations of the Blue Ribbon Committee on Improving the Effectiveness of Corporate Audit Committees," The New York Stock Exchange and The National Association of Securities Dealers, 1999.

[5] The SEC first recommended the establishment of audit committees comprised of nonofficer board members in 1940 (Accounting Series Release no. 19). The California Public Employees' Retirement System (CalPers) published its "core principles and guidelines" in 1998. The Treadway Commission advocated the establishment of audit committees comprised solely of independent directors in their October 1987 report entitled "Report of the National Commission on Fraudulent Financial Reporting."

firms. Basically, each board gauges the external demand for audit committee independence for its firm and meets that demand by supplying a degree of independence. I measure independence three ways (see section VII for the definitions). Demand is determined primarily by two factors: the linkage between equity valuation and financial accounting data, and the use of financial accounting data in contracts to alleviate agency costs among managers, shareholders, and debtholders. The results of this paper support the view that audit committee independence is positively related to the informativeness of financial accounting information for equity valuation and negatively related to the degree of bargaining power that the CEO commands over the board. In contrast, I find no evidence of a linkage between audit committee composition and the existence of contracts between common shareholders and senior claimants.

This paper also examines the possibility that audit committee independence is but one corporate governance mechanism. Consistent with this assertion, I find that CEO shareholdings and the existence of a large blockholder on the audit committee are substitutes for audit committee independence.

I also examine whether independent audit committees are beneficial to shareholders. I find that audit committee independence is negatively related to the CEO's cash compensation and positively related to the number of times the audit committee meets.

Finally, for the hypotheses to be economically viable, I need to make two assumptions. The first is that independent directors are more willing and able to monitor the CEO (as compared to non-independent directors). This is a standard assumption made throughout the corporate governance literature. The second is that the "supply" curve of audit

committee independence is upwardly sloping (e.g., not flat). This implies rising costs to the firm of supplying more audit committee independence. As explained in section IV., this assumption mirrors the real world of financial accounting. For example, if, as The Committee asserts, audit committee independence leads to a more rigorous audit by the external auditors, then there will be a positive association between independence and costs to the firm.

II.   Relation to Existing Literature

Three types of research have been done on board committees in general, and on audit committees in specific. One line of research has been to present data on the types of directors (insiders, outsiders and affiliated directors) that sit on audit committees. Vicknar, Hickman and Carnes (1993) examine the percentage of affiliated directors on audit committees for 100 NYSE firms between 1980 and 1987. They find that, contrary to the newly instituted NYSE requirement that audit committees be comprised solely of directors independent of management, more than one-quarter of all firms over the previous period had audit committees with a majority of affiliated directors. Verschoor (1993) shows similar results for a sample of banks subject to the FDIC Improvement Act of 1991. Klein (1998) finds a lack of independence for her sample of S&P 500 firms over a two year period ending in 1993.

A second group of studies identifies the characteristics of firms that voluntarily form audit committees. Pincas, Rusbarsky and Wong (1989) and Menon and Williams (1994) examine 100 (200) NASDAQ firms between 1986 and 1987. They find that companies with standing audit committees were more likely to have Big Eight independent auditors

and had a higher proportion of outside directors than firms without such committees do. However, no consistent associations were found in these two studies between the likelihood of having an audit committee and agency costs of equity (measured by management's shareholdings), agency costs of debt (measured by the firm's debt-to-assets ratio), or economies of scale in monitoring costs (measured by firm size). Eichenseher and Shields (1985) find similar results for their sample of 64 American Stock Exchange firms.[6] These papers suggest that audit committees do not deal effectively with the firm's agency problems.

A third line of research has been to examine the effects of audit committee existence (but not composition). Wild (1994) finds that earnings became significantly more informative to market participants after formation of the audit committee. He uses data from 260 U.S. companies that formed audit committees between 1966 and 1980. His main finding is that the relationship between earnings and returns (known as the ERC) increases from 0.15 before formation to 0.28 after formation. Dechow, Sloan and Sweeney (1996) report that firms with a board majority of inside directors and without an audit committee are more likely to commit financial fraud, compared to a control sample matched by industry and size. DeFond and Jiambalvo (1991), using a sample of 41 corrections of earnings overstatement errors from 1977 to 1988 and a matching control sample, find that earnings overstatements are less prevalent for firms that have audit committees. Beasley (1996), on the other hand, finds no relationship between the incidence of financial statement fraud and the existence of an audit committee. His sample consists of 75 firms accused by

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[6] Bradbury (1990) finds similar results for 135 firms listed on the New Zealand Stock Exchange.

the SEC of violating Rule 10(b)-5 of the 1934 Act and 75 "non-fraud" firms during the period 1980-1991.

III.   Supply and Demand for Audit Committee Independence: General Discussion

I take a basic supply and demand approach on the amount of audit committee independence provided by firms. Financial reporting disclosures are used generally for valuation and contracting purposes. Investors use accounting information to make assessments of future cash flows, future earnings, abandonment values, and ultimately the value of the firm and its equity. Creditors and boards of directors use accounting data for debt covenants, compensation contracts, and measurement of managerial skills. Thus, the demand for audit committee independence will rise in the needs and/or ability to use unbiased financial accounting information.

Firms have some flexibility in audit committee composition. I make the general assumption that independent audit committee members bring a high level of scrutiny and integrity to the financial auditing process. This assumption is consistent with that taken by the Blue Ribbon Committee (e.g., see Recommendation 2 of the Report (1999)) and with academic research (e.g., see Beasley (1996) and Carcello and Neal (1998a, 1998b)). In addition, Fama and Jensen (1983) and Fama (1980) argue that outside directors have incentives to be effective monitors of the firm's top management. However, there are positive costs to shareholders and to the firm to monitoring (e.g., see Jensen and Meckling (1976)). Thus, audit committee independence is not a free good but has an upward sloping (in cost) supply curve.

IV. The Supply and Costs of Audit Committee Independence

The audit committee is an extension of the board of directors. Its mandate is to act as the ultimate oversight of the financial reporting process. Generally, the audit committee selects the outside auditor and meets separately with senior financial management as well as

the external auditor. Its role is to act as an interrogator, asking management, internal auditors and external auditors questions that will help determine if the firm's constituents and the full board are being served fairly by all three groups.

While there are no explicit guidelines as to the type of questions audit committees should ask, various constituencies have provided suggestions along these line. Arthur Andersen (1998) recommends that audit committees "in particular" consider important management judgments and accounting estimates, unusual transactions, related party transactions, and asserted and unasserted litigation and claims. The National Association of Corporate Directors (NACD) (1998) suggests that audit committees should ask whether the auditors have identified risk factors as part of their required risk assessment. If such factors have been identified, NACD states that the specific audit committee should ask management for its views and to seek from management and the auditors recommendations for actions to reduce or eliminate the identified risks. Many other examples exist.

The NYSE and the NASDAQ require listed companies to maintain audit committees. The NYSE requires the committee to be comprised solely of independent directors; the NASDAQ requires that a majority of audit committee members be independent of management. The AMEX recommends but does require listed companies to have audit committees. These standards allow for variations in the degree of audit committee independence.[7]

In a world of zero agency costs, there would be no need for an audit committee. In the real world of positive agency costs, there are benefits to having an active and independent

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[7] The NYSE requires 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 judgement as a committee member" (p. 6). Absent in their listing standards is a definition of independence. The NASDAQ defines an independent director as 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 judgement in carrying out the responsibilities of a director" (Section 6(c)). The AMEX defines independent directors as directors "who are not officers of the company; who are neither related to its officers nor represent concentrated or family holdings of its shares; and who, in the view of the company's board of directors, are free of any relationship that would interfere with the exercise of independent judgment" (p. 8).

audit committee. The benefits include transparent financial statements, active trading markets, and the ability to use unbiased financial accounting numbers as inputs into contracts between common shareholders, and senior claimants or management. These benefits suggest that all audit committees should be comprised solely of "truly" independent directors.

However, there are potential incremental costs to the shareholder in maintaining an independent audit committee. More independent audit committees, *ceteris paribus*, provide a higher level of scrutiny to the auditing process, which in turn can be costly to the firm. These costs can be in dollars paid to the external auditor, in time spent by the internal auditors, or in time spent by the managers. For example, if the audit committee questions a disclosure, this will lengthen the audit process causing both higher audit fees and extra time spent by management in resolving the issue. The incremental costs can be the firm's equity value. For example, a more thorough process may delay the filing of the statements, which may temporarily depress the firm's stock price (Chambers and Penman (1984)). The costs also can be in human resources. Finding qualified outside directors with previous understanding of the firm's accounting issues can be both time consuming and expensive.

V. The Demand for Financial Accounting Data

A. Equity Valuation, Firm Type, and Financial Accounting Data

The SEC has emphasized the linkage between transparent, timely and reliable financial statements and shareholder protection.[8] Researchers have provided evidence that shareholders use accounting earnings (e.g., Easton (1985), Easton and Harris (1991)), earnings accruals (e.g., Rayburn (1986)), book value of equity (e.g., Ohlson (1995), Collins, Maydew, and Weiss (1997)), and other financial accounting information (e.g., Ou and Penman (1989)) in valuing equity.

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[8] See, for example, Arthur Levitt's September 28, 1998 speech, *supra,* footnote 2.

However, the value-relevance of financial accounting information is not uniform across all types of firms. Financial statements must be generated under GAAP. This requirement limits the type of information reported in published financial statements. If GAAP does not provide value-relevant information to investors, then (1) investors will have to rely on secondary sources of information and (2) the demand for reliable accounting data will be less pronounced. In turn, this will diminish the demand by investors for independent audit committees.

Previous papers have identified two types of firms in which financial accounting data are less value-relevant.

1. <u>High growth opportunity firms and audit committee independence.</u> Amir and Lev (1996) and Lev and Zarowin (1999) demonstrate that earnings, book values, and cash flows are not very useful when assessing the values of equities for high growth opportunity firms. Amir and Lev (1996) find that earnings, book values, and cash flows are not useful without other economic information when valuing firms in the telephone industry.[9] Lev and Zarowin (1999) show that the relative usefulness of financial accounting data in determining stock prices and returns has declined over the 1978-1996 period. Their measure of usefulness is the adjusted R^2 values of regressions of price (return) on earnings, book values, and cash flows. Lev and Zarowin attribute their findings to the increase over time in the relative number of firms with large investments in intangible assets, such as R&D, information technology, brand names, and human resources. While these items are value-relevant, current accounting rules rarely recognize them as accounting assets. Nor do current accounting rules provide adequate disclosures for investors to assess their value relevance. Consistent with Lev and Zarowin, Amir, Lev, and Sougiannis (1999) find that the informativeness of current financial information is lowest for hi-tech firms and that analysts' contribution to the company's equity is highest for these firms.

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[9] The other information are population size in the company's licensed are multiplied by the firm's percentage ownership (called POPS) and the actual number of subscribers divided by POPS (called the penetration rate).

This discussion suggests that if the usefulness of financial accounting data in equity valuation is not high, then investors' demand for such information will be limited. With respect to audit committees (in alternative form):

H1: Audit committee independence will be related inversely to the level of expected growth in earnings or cash flows of the firm.

2. <u>Firms with negative earnings and audit committee independence.</u> Hayn (1995), and Amir, Lev, and Sougiannis (1999) show that the cross-sectional returns-earnings relation is much weaker for firms reporting negative earnings than for firms reporting positive profits. Collins, Maydew and Weiss (1997) and Collins, Pincus and Xie (1999) find a negative coefficient between earnings and returns for firms with negative earnings.[10] They also report that value-relevance shifts from earnings to book values of equity for negative earnings firms. Since book values predominantly reflect past accounting data, their findings suggest that investors' demand for accounting data is less for negative earnings firms than for positive earnings firms. In the alternative form,

H2: Audit committee independence will be related inversely to the incidence of negative earnings.

B. Contracting and Financial Accounting Data

The use of audited financial accounting information in contracts to alleviate agency costs among managers, shareholders, and debtholders is widely documented in the economics, finance, and accounting literature. Jensen and Meckling (1976) hypothetically discuss the use of "detailed financial statements" in debt covenants as a means for debtholders to monitor management (p. 338). Smith and Warner (1979) and Leftwich

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[10] Collins, Pincus, and Xie also report a surge in the percentage of firms of firms reporting negative earnings between 1975 and 1992. For the 1975-1981 period, 6 to 15% of the Compustat population reported negative earnings. For the 1985-1992 period, this percentage ranged from 28 to 31 percent.

(1983) provide evidence that this is true for publicly-traded and private firms. Jensen and Meckling (1976) and Smith and Watts (1982) formulate the hypothesis that the board of directors uses accounting data to align shareholder interests with management through compensation contracts. Empirical support for their contention is provided by Houlthausen, Larcker, and Sloan (1995) who report that 91% of the organizations in the 1991 Hay Management Consultants database have a performance-based annual bonus plan for senior-level management.

However, as Jensen and Meckling (1976) so aptly state, the magnitude of agency costs and the amount of bonding costs (e.g., use of reliable financial accounting information) that investors and creditors will bear vary from firm to firm. These costs are positively related to the ease with which management can "exercise their own preferences as opposed to value maximization in decision making" (p. 328) and the ability to measure the manager's performance.

1. <u>CEO's compensation contracts, CEO's bargaining position and audit committee independence</u>. Houlthausen, Larcker, and Sloan (1995) present evidence that CEO bonus plans are based on target accounting numbers being reached. Thus, it would be to the CEO's financial and professional interest to have the *flexibility* to manage his firm's financial accounting process for his own benefit. Shareholders, on the other hand, have incentives to limit the CEO's ability to do so. However, monitoring the CEO is costly (e.g., Jensen and Meckling (1976)); thus, shareholders and the CEO reach an agreement as to the equilibrium level of desired monitoring.

Hermalin and Weisbach (1998) present a theoretical model in which the degree of board monitoring of the CEO is viewed as a result of a bargaining process between the

CEO and existing board members. Highly performing CEOs bargain for and receive from their boards (and shareholders) corporate governance structures that monitor them less intensely. In their multi-period model, over time, more successful CEOs have less independent boards (committees) and shareholders accept this structure because they perceive a lower need to monitor the CEO. A key assumption in their model is that director independence and monitoring the CEO go hand in hand. A second key element of their model is that the CEO is an active participant in negotiating a board structure most suitable to his needs.

One way the CEO could negotiate for the audit committee to monitor less would be for the CEO to sit on the board's audit committee. However, for regulatory and cosmetic reasons, few CEOs choose this most obvious route.[11] A more subtle way would be for the CEO to sit on the board's nominating committee. The nominating committee serves the duo function of recommending possible candidates for election to the board and nominating existing board members to serve on board committees. If CEOs bargain for more sympathetic boards, then in the alternative form:

H3a: Audit committee independence will be related inversely to the CEO sitting on the board's nominating committee.

Hermalin and Weisbach (1998) also propose that more powerful CEOs bargain with the board for a higher wage. Consistent with the fact that boards determine CEO wage and bonus, a CEO could influence his compensation package by sitting on the board's

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[11] Two percent of the firms in my sample have the CEO as a sitting member of the audit committee.

executive compensation committee.[12] I propose that a CEO's ability to place himself on the board compensation committee is indicative of the CEO's ability and desire for the board to have a weaker (less intense) monitoring function. Thus, in the alternative form:

H3b: Audit committee independence will be related inversely to the CEO sitting on the board's executive compensation committee.

2. <u>Debt covenants, preferred stock and audit committee independence</u>. Agency problems exist among common shareholders, management, and more senior claimants on the firm's assets. Debtholders typically receive interest payments at regular intervals and principal payments at maturity. Failure to pay interest results in the firm being in default. Legal remedies for the debtholder against the firm include involuntary bankruptcy, seizure of collateral for a secured loan, and a deficiency judgment through court proceedings.

Preferred shareholders typically receive fixed amount dividends, the amount determined at the stock issuance date. Preferred stockholders have a preferential right vis a vis the common shareholder to the payment of dividends. However, failure to pay preferred stock dividends does not result in default. Instead, most preferred stock provides for cumulative dividends. That is, if the corporation does not make its payment, it becomes a contingent obligation, which must be paid in full before any payment of any common stock dividend. However, the accrued preferred dividend may be eliminated by an amendment to the articles of incorporation or by merging the existing corporation into a shell corporation and converting the preferred shares into common shares.[13]

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[12] 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.

[13] For the corporation to eliminate or reduce the preferred dividends through a change in its articles of incorporation, the proposal must be approved by the preferred shareholders (see RMBC § 10.04). Preferred stockholders might approve the proposal as a means to receive future earnings. For Delaware firms, if the preferred stock is non-voting, a merger of the parent company with a shell corporation can be enacted without

Given that interest and preferred dividend payments are firm controlled, debtholders and preferred stockholders may want assurances that managers and/or common shareholders do not expropriate their wealth through changes in company by-laws, charter amendments, misstatements of retained earnings or earnings, common dividend distributions or other means (Jensen and Meckling (1976)). Watts and Zimmerman (1990) discuss the means by which debtholders use audited financial accounting numbers in their contracts to minimize the agency costs of expropriation (e.g., they cite Smith and Warner (1979) and Leftwich (1983)).

H4: Audit committee independence will be related positively to the incidence and degree of senior claimants on the firm.

C. Alternative Corporate Governance Mechanisms

The audit committee is but one corporate governance mechanism within a menu of possible choices. If corporate governance mechanisms are substitutable, then alternative corporate governance mechanisms should mitigate the need for the firm to have an active, independent audit committee.[14] This is the position taken by The Blue Ribbon Committee who acknowledges the existence of alternative monitoring systems.

To control for potential interdependencies among corporate governance mechanisms, I include two alternative corporate governance mechanisms. %CEO Shares is the percentage of the CEO's shareholdings in the firm. As defined by Item 403(b) of Regulation S-K, it includes all shares that the CEO has the power to vote or dispose of (including family holdings and trusts) and all options, warrants, or rights exercisable within 60 days of the filing. Large Blockholder on Audit Committee is a dummy

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the preferred shareholders' vote (see Delaware General Corporation Law §251(c). See also Bove v. The Community Hotel Corp. of Newport, 249 A.2d 89 (R.I. 1969)).

[14] For example, Agrawal and Knoeber (1996) find evidence supporting the substitutability between institutional shareholdings and large (5%) blockholders.

variable equal to one if at least one large (5% shareholdings) noninside blockholder sits on the board's audit committee and zero otherwise.

H5:   Audit committee independence is a substitute (negatively related) to alternative corporate governance mechanisms.

VI.   Data Description and 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 30, 1993. All financial data are from Compustat. All returns data are from CRSP. From the original sample, 65 banks and financial institutions and 38 insurance companies were excluded due to their unique financial structures; three firms had no standing audit committee and were deleted; and 58 firms were excluded due to missing Compustat or CRSP data. The final sample consists of 803 firms over a two-year period.

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 current shareholdings of the firm.[15] Schedule 14A (Item 7(e)(1)) requires firms to state whether they have a standing audit committee. If such a committee exists, firms are

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[15] 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. 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.

required to disclose its functions and responsibilities, its members, and the number of times the committee met during the last fiscal year.

Table 1 presents descriptive data on board and audit committee composition. Directors are classified into one of three categories widely used in prior studies on boards. Outside directors have no affiliation with the firm beyond being a member of the firm's board. Inside directors are presently employed by the firm, typically, the CEO, President or a Vice President. Affiliated or "grey" directors are former 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. These definitions are consistent with those described by the SEC-sponsored Blue Ribbon Commission on Audit Committee Effectiveness.

Consistent with recent studies or surveys of board composition, 58.4% of the board are comprised of outside directors, less than one-quarter (22.5%) are inside directors; and the rest (19.1%) are grey directors.[16] In contrast, audit committees contain a preponderance of outsiders (79.6%), and a paucity of insiders (1.4%).

Using t-tests, I examine whether the apparent differences in board and audit committee percentages are statistically different. For outsiders, a t-statistic of 33.92 is found, significant at the .01 level. For insiders, a t-statistic of –52.41 is found, also significant at the .01 level. Thus, audit committees, on average, are more independent than their parent boards are. A Hotelling T^2 test for absolute independence (i.e., 100% outsiders) produces

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[16] The National Association of Corporate Directors (NACD), in conjunction with Ernst & Young, reports an average board size of 12, with 26% being insiders in their 1988 survey of 850 respondents. Yermack (1996) reports a mean board size of 12.25, with 54% being outsiders for his sample of 452 firms listed on the *Forbes* 500 between 1984 and 1991. Bhagat and Black (1998) reports similar percentages of insiders for 957 large U.S. firms from early 1991.

F-statistics significant at the .01 level, rejecting the null hypothesis of absolute independence.[17]

A perusal of the professions of the outside directors on the audit committee reveals that 25% of all audit committees have at least one present CEO of another S&P 500 firm and 25% have at least one retired CEO of another S&P 500 firm. Other common professionals are outside attorneys (13.4%), affiliated attorneys (12.8%), and former employees of the firm (12.3%). Interestingly, only 3.6% of the audit committees have a former CPA as a sitting member.

VII. Empirical Results

In this section, I present both univariate and multivariate models to test the hypotheses stated in Section V. Although multivariate models are more powerful if correctly specified, univariate tests are an important first step because they rely on fewer assumptions and thus are more robust. Univariate tests also give a more descriptive view of the data used in the later tests.

A. Univariate Results

Table 3 presents comparisons of economic attributes for firms with and without independent audit committees. Means for each group and a t-test testing for a difference in mean between groups (alternative hypothesis) are presented. Table 2 presents summary statistics for each of the variables for the entire sample.

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[17] The Hotelling T^2 test determines if the mean of the joint distribution of insiders/affiliates/outsiders for the committee is significantly different from a pre-determined mean. In this case, the pre-determined mean is 0% insiders, 0% affiliates and 100% outsiders. The F-statistic is 184.51, significant at the .01 level.

For this section, audit committee independence is measured two ways. First, I use the Blue Ribbon Committee definition of independence, which is that *every* member of the audit committee be an outside director. Three hundred sixty audit committees (45%) fit this definition; four hundred forty-three audit committees (55%) do not. Second, I use a majority definition, which is that over 50% of the audit committee members be outside directors. Seven hundred thirty-seven (92%) of all audit committees fall into this category; sixty-six (8%) do not.

Hypothesis 1 predicts an inverse relation between expected growth and audit committee independence. Two measures of expected growth are examined. They are Smith and Watt's (1992) and Gaver and Gaver's (1993) measure of the firm's opportunity growth set[18] and the firm's market-to-book value of equity at the beginning of the fiscal year. Consistent with hypothesis 1, rows (1) and (2) of Table 3 report that firms with independent audit committees have statistically significantly lower growth opportunities and market-to-book value ratios than firms without independent audit committees.

Hypothesis 2 predicts an inverse relation between audit committee independence and the incidence of negative earnings. I find that 3.9% of the firms with 100% independent audit committees had at least two consecutive years (ending in the prior fiscal year) of negative earnings. In contrast, 5.2% of non-100% independent audit committee firms experienced two or more consecutive years of negative earnings. The t-statistic for differences in means, however, is not statistically different. Nor do I find differences in

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[18] The firm's opportunity growth set is three-year total firm value to three-year total assets-in-place set ending on the fiscal year prior to the shareholders' meeting.

the incidence of negative earnings for the dichotomy based on a majority (GT 50%) of independent audit committee members.

Hypothesis 3a predicts an inverse relation between audit committee independence and whether the CEO sits on the board's nominating committee. Hypothesis 3b predicts an inverse relation between audit committee independence and whether the CEO sits on the board's compensation committee. As Table 2 illustrates, for the entire sample, the CEO sits on the board's nominating (compensation) committee 51.6% (9.1%) of the time. Consistent with hypotheses 3a and 3b, rows (4) and (5) of Table 3 report statistically negative associations between audit committee independence and whether the CEO sits on the nominating and compensation committees, respectively.

Hypothesis 4 predicts a positive relation between audit committee independence and the incidence of senior claimants on the firm. The percentage of firms with long-term debtholders and/or preferred stock holders is higher for firms with 100% and GT 50% independent audit committees than for firms with less independent committees; however, there are no statistical differences in the reported percentages. For the GT 50% independence definition, firms with independent audit committees have a long-term debt to assets ratio of .22, compared to a .17 ratio for less independent firms. The difference is statistically different at the .10 level.

Finally, as shown in rows (8) – (11) of Table 3, audit committee independence is statistically negatively related to CEO shareholdings, non-outside director shareholdings, all director shareholdings, and whether a large blockholder sits on the audit committee. These results are consistent with hypothesis 5, which predicts substitutability between audit committee independence and other corporate governance mechanisms.

B. Multivariate Results

The univariate results are suggestive, at best, because of potential interactions among the independent variables. To allow for these interactions, I estimate multivariate models. First, I use probit models to determine the effects of the independent variables on the two dichotomous measures of audit committee independence. Probit models adjust for the non-normality of using an indicator (1 and 0) as the dependent variable. I also use a multiple regression model in which audit committee independence is measured as the percentage of outside directors on the audit committee. Since this variable is also bounded between zero and 100 percent, I apply a logistic transformation to these percentages using the formula $Ln((pct./1-pct.)+1)$. Adding one to the percentage allows firms to have zero types of directors on the committee.

The probit and regression models use a subset of independent variables described in Tables 2 and 3. The choice of independent variables is based on using one variable to represent each hypothesis. For example, I picked the Smith and Watts's (1992) definition of the investment opportunity set as my measure of the firm's future growth opportunities. The other choices were market-to-book value of equity or the firm's Tobin Q ratio. Since these measures are highly correlated to each other, I had to choose just one. In section VII(C), I discuss the empirical results using alternative measures of growth opportunities, senior claimants, and management shareholdings. I also discuss other tests of statistical robustness.

I add two control variables to the models. A dummy variable for 1992 adjusts for temporal effects.[19] Firm size, measured as the log of the firm's assets, acts as a proxy for potentially missing variables.

The results, presented in Table 4, are consistent with most of the hypotheses. Negative associations are found between audit committee independence and growth opportunities (hypothesis 1), negative income (hypothesis 2), the CEO being on the board's nominating committee (hypothesis 3a), the CEO being on the board's compensation committee (hypothesis 3b), and whether a large blockholder sits on the board's audit committee (hypothesis 5). The negative coefficients are all statistically significant at the .10 level or better for the probit model using the 100% definition of independence and for the regression model. Weaker results are found for the greater than 50% definition. These results suggest that the economic causes behind variations in audit committee composition are most pronounced for firms trying to achieve total independence. Interestingly, no significant coefficient (or consistent sign) is found for the debt and/or preferred stock variable, suggesting no relation between audit committee independence and the incidence of senior claimants on the firm.

C. Sensitivity Analysis

Multivariate models are sensitive to their implied assumptions. In this section, I examine the sensitivity of the results in Table 4 to these assumptions.

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[19] In section VII.C, I estimate each year individually.

Probit Analysis

To determine the sensitivity of my results to the choice of a probit analysis, I also use a logit model. Because the cumulative normal distribution of the probit model and the logistic distribution of the logit model are very close to each other, except at the tails, similar results should be observed (Maddala (1993)). To examine the comparability of the two models, I examine the goodness-of-fit tests, the significance levels of the individual independent variables and compare the coefficients of the two models. For the dichotomy based on 100% independence, the goodness-of-fit tests and the significance levels are comparable to each other within a range of .001-.02. Following Maddala, who cites Ameimiya (1981), I transform the probit estimates into approximations of the logit estimates by multiplying the probit estimates by 1.6. This transformation produced estimates that were within 5% of the point estimates of the probit model for the 100% independence sample. The results for the majority sample were not as "clean," a finding consistent with the weaker results reported for this sample in Table 4.

Serial Correlation

The results in Table 4 are pooled regressions for 1992 and 1993. Two main advantages of using pooled regressions are that they allow for more observations and the results are not dominated by one year's results. The primary disadvantage is that many firms are included in the sample twice. If there is little to no turnover in the audit committee for the twice-included firms, then for these firms, there will be serial correlation in the percentage of outside directors on the audit committee between 1992 and 1993. Serial correlation produce unbiased and consistent least squares and probit

estimators, respectively. However, the standard errors of the estimators are not efficient for either procedure, which means that the reported significance levels may be overstated.

Of the 803 observations in the two-year sample, three hundred ninety-five firms are included twice (for a total of 790 observations), six are in 1992 only, and seven are in 1993 only. For the twice-included firms, there is a turnover rate of 20.4% of all audit committee members between 1992 and 1993. Adding the once-included firms to the entire sample increases the "turnover" rate to 22.2%. For the twice-included firms, the Pearson (Spearman) correlations for the percentage of outside directors on audit committees are .72 (.72) between 1992 and 1993.

For the 360 100% independent observations, one hundred forty-eight firms are included twice (for a total of 296 observations) and 65 firms are included once. This translates into a "turnover" rate of 30.5%. The turnover rate for the GT 50% independent group is only 13.2%.

These numbers suggest that the t-statistics and chi-square values reported in Table 4 may be influenced by serial correlation. Table 4 partially adjusts for the serial correlation by including a dummy variable for all 1992 observations. However, while this allows for fixed effects in the intercept term, it has no effect on the slope coefficients. To allow for separate yearly slope coefficients, I estimate probit and regression models for each year individually. Since there are only two years of data, this is equivalent to using yearly fixed effects model for the whole sample.[20]

The results are presented in Table 5. Generally, the results reported for the pooled sample are robust with respect to year. CEO on Compensation Committee and Large

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[20]Yearly fixed effects models for the whole sample would eliminate one half of the sample.

Blockholder on Audit Committee are significant for all six models. Growth Opportunities is significant for the 1992 models; CEO on Nominating Committee is significant for two of the three 1993 models. The one explanatory variable that appears to be least robust to the pooling method is negative income, which is statistically significant for one model only.

Other Independent Variables

I re-estimate the probit and regression models of Table 4 using alternative measures of the underlying constructs. The three independent variables sequentially replaced are growth opportunities, %CEO shareholdings, and Debt and/or Preferred Stock. As alternatives growth opportunities, I use the market-to-book-value of equity and the market-to-book-value of assets (Tobin's Q). The results with these two measures are not as strong as those reported in Table 4. However, it is not clear whether these variables represent growth opportunities better than (or equal to) than my original construct. For example, market-to-book value of equity measures risk as well as future growth opportunities. As alternatives to %CEO shareholdings, I use the percent of inside director shareholdings and the percent of all director shareholdings. Like Table 4, the percent of all director shareholdings is insignificantly different from zero. However, the percent of inside director shareholdings is significantly negative at the .01,.10,and .01 levels for the probit (regression) models on 100% Independence, GT 50% Independence, and %Outsiders, respectively. This latter result is consistent with Jensen and Meckling's (1976) theory that management incentives can be aligned with shareholdings if both are stakeholders in the firm. As alternatives to Debt and/or Preferred Stock, I create separate

variables for the existence of long-term debt and preferred stock. Neither of these variables is significantly different from zero at standard levels.

VIII.   Consequences of Variations in Audit Committee Composition

Thus far, the paper has examined causes behind variations in audit committee composition. The empirical findings are consistent with the hypotheses that demand for audit committee independence is negatively related to the usefulness of the information to investors (hypotheses 1 and 2) and to alternative corporate governance mechanisms (hypothesis 5). The results are also consistent with the hypothesis that audit committee independence is negatively related to the CEO's ability and desire to influence his compensation contracts through board committee structure (hypotheses 3a and 3b). No evidence is found to support the proposed negative relation between audit committee independence and the incidence of senior claimants on the firm (hypothesis 4).

Closely tied to each of the above hypotheses are implications about the economic consequences of variations in audit committee composition. Put simply, it is proposed that audit committee independence produces positive benefits to the firm's shareholders.

To test this view, I regress three benefits on audit committee independence and other control variables. The empirical results are contained in Table 6. Columns (1)-(3) present regressions of CEO salary and bonus on audit committee independence and other control variables.[21]   CEO salary and bonus are taken from the proxy statements. A

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[21] The control variables are firm size and stock performance (both in Murphy (1985)), accounting earnings (Houlthausen, Larcker, and Sloan (1995), Blackwell, Brickley, and Weisbach (1994) and Lambert and Larcker (1987)), variability of returns (Lambert and Larcker (1987), Bryan, Hwang and Lilien (2000) and Bushman, Indjejikian, and Smith (1996)), CEO tenure (Bushman, Indjejikian, and Smith (1996)), and utilities (Hubbard and Palia (1995), Smith and Watts (1992) and Bushman, Indejikian, and Smith (1996)).

negative association is proposed between the two. Columns (4)-(6) present regressions of long-term debt on audit committee independence and other control variables.[22] If hypothesis 4 is correct, then firms with more independent audit committees will have higher debt capacities in their capital structure. Columns (7)-(9) present regressions of the log of the number of audit committee meetings on audit committee independence and other control variables.[23] Menon and Williams (1994) propose that audit committee activity can be proxied by the number of times the committee meets. Meetings are defined as actual meetings plus telephone conference calls. The Blue Ribbon Commission recommends that the SEC requires audit committees (or their chairmen) to meet with the outside auditor prior to each 10Q filing. Admittedly, the number of meetings is an incomplete proxy for audit committee activity. However, an active committee should meet fairly often.

The evidence in Table 6 supports two of the hypotheses. CEO's wage and bonus is significantly negatively related to two measures of audit committee independence. The number of audit committee meetings is positively related to the same two measures of audit committee independence. These findings suggest that audit committee composition may influence real economic decisions (CEO pay) and corporate governance practices (number of audit committee meetings). Consistent with the results reported in the prior

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[22] Long-term debt is defined as the three-year ratio of long-term debt over the book value of assets. The control variables are growth opportunities, property, plant and equipment (both in Lang, Ofek, and Stulz (1996)), net income/assets and standard deviation of ROA (both in Titman and Wessels (1988)).

[23] The number of meetings and phone conference calls are taken from the proxy statement. The control variables are firm size (Menon and Williams (1994)), the standard deviation of ROA and whether the firm is a utility or not.

section, no statistically significant results are found for the regression of long-term debt on audit committee independence.

IX.   Concluding Remarks

This paper examines and finds systematic economic factors behind variations in audit committee composition. Specifically, audit committee independence is positively related to the informativeness of accounting data in valuation and negatively related to the degree of bargaining power that the CEO commands over the board. In contrast, no systematic relation is found between audit committee composition and the degree of contracting between shareholders and senior claimants. This paper also examines and finds economic benefits of firms having independent audit committees. Specifically, CEO cash compensation and the number of audit committee meetings are negatively (positively) related to audit committee independence, respectively. Finally, consistent with the Blue Ribbon Committee's assertion that audit committee composition is but one piece in the firm's overall corporate governance, a negative relation is found between audit committee independence and alternative corporate governance mechanisms.

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Table 1

Descriptive Data for Audit Committee Composition

	(1) Board as a Whole	(2) 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 that Have at Least One Member who is:		
Insider	99.7%	4.8%
CEO	99.0	1.9
Outsider	99.0	97.9
Attorney	18.5	13.4
Investment Banker	13.3	7.5
Commercial Banker	14.4	7.2
CEO of other S&P Firm	47.9	25.0
Retired CEO of other S&P Firm	42.9	25.0
Former CPA	4.0	3.6
Affiliate	85.5	54.3
Attorney	26.1	12.8
Commercial Banker	8.3	3.8
Investment Banker	12.4	4.9
CEO of other S&P Firm	14.1	6.1
Retired CEO of other S&P Firm	8.4	4.5
Relative of CEO	11.3	4.3
Former Employee of Firm	51.5	12.3

Sample is for 803 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. Banks, financial institutions, insurance companies and firms with missing Compustat or CRSP data are excluded.

Table 2

Summary Statistics for Economic Attributes of Firms – All Firms in Sample

	Mean	Median	Std. Error
Growth Opportunities	1.72	1.36	1.08
MV/BV of Equity	2.80	2.00	4.57
%Firms with Negative Income	4.6%	0.0%	2.1%
%Times CEO is on Nominating Committee	51.6%	NA	1.7%
%Times CEO is on Compensation Committee	9.1%	NA	1.0%
%Firms with LT Debt	95.5%	100.0%	20.7%
%Firms with Preferred Stock	39.5%	0.0%	48.9%
LTDebt/Assets	.21	.20	.15
%CEO Shareholdings	1.58%	0.37%	0.13%
%Times Large Blockholder Sits on Audit Committee	1.6%	0.0%	7.0%

Variable Definitions

Growth Opportunities is the three-year market value of the total firm over the three-year assets-in-place ending on the fiscal year prior to the shareholders' meeting. MV/BV of Equity is the ratio of the market-to-book values of equity ending on the fiscal year prior to the shareholders' meeting. Negative Income 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. CEO is on Nominating Committee and CEO is on Compensation Committee are indicators if the CEO is a sitting member of either committee, respectively. LT Debt and Preferred Stock are indicators if the firm has either long-term debt or preferred stock in its capital structure, respectively. LT Debt/Assets is the three-year ratio of long term debt (book value) over the book value of assets ending on the fiscal year prior to the shareholders' meeting. %CEO Shareholdings is the percentage of shares owned by the CEO. Large Blockholder on Audit Committee is an indicator if a non-inside director with at least 5% shares sits on the board's audit committee.

Table 3

Comparisons of Economic Attributes for Firms With Independent and Non-Independent Audit Committees

		Is Audit Committee 100% Independent?			Is Audit Committee GT 50% Independent?		
		Yes (N=360)	No (N=443)	t-value for difference	Yes (N=737)	No (N=66)	t-value for difference
(1)	Growth Opportunities	1.6	1.8	-2.63[a]	1.7	2.2	-3.20[a]
(2)	MV/BV of equity	2.4	3.1	-2.23[b]	2.7	3.5	-1.73[c]
(3)	Negative Income?	3.9%	5.2%	-0.89	4.6%	4.6%	-0.00
(4)	CEO is on Nominating Committee?	44.2%	56.9%	-3.61[a]	50.4%	60.0%	-1.48
(5)	CEO is on Compensation Committee?	4.7%	12.6%	-4.09[a]	7.3%	29.2%	-3.80[a]
(6)	Has Debt and/or Preferred Stock?	96.7%	94.6%	1.45	95.9%	90.8%	1.40
(7)	Long-term debt/Assets	.21	.21	0.15	.22	.17	2.64[a]
(8)	%CEO Shareholdings	1.2%	1.9%	-2.60[a]	1.5%	2.5%	-1.88[c]
(9)	%Non-Outsider Shareholdings	1.8%	3.3%	-3.82[a]	2.4%	5.0%	-2.51[b]
(10)	%All Director Shareholdings	6.8%	9.8%	-2.03[b]	7.6%	18.6%	-2.85[a]
(11)	Large Blockholder on Audit Committee?	0.5%	2.4%	-4.31[a]	1.1%	6.5%	-2.74[a]
(12)	Firm Size	9287.8	7876.0	0.98	8855.5	4682.4	3.42[a]

[a] significant at the .01 level
[b] significant at the .05 level
[c] significant at the .10 level

Variable Definitions
Growth Opportunities is the three-year market value of the total firm over the three-year assets-in-place ending on the fiscal year prior to the shareholders' meeting. MV/BV of Equity is the ratio of the market-to-book values of equity ending on the fiscal year prior to the shareholders' meeting. Negative Income 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. CEO is on Nominating Committee and CEO is on Compensation Committee are indicators if the CEO is a sitting member of either committee, respectively. LT Debt and/or Preferred Stock is an indicator if the firm has either long-term debt or preferred stock in its capital structure. LT Debt/Assets is the three-year ratio of long term debt (book value) over the book value of assets ending on the fiscal year prior to the shareholders' meeting. %CEO Shareholdings is the percentage of shares owned by the CEO. %Non-Outsider Shareholdings is the percentage of shares owned by all non-outside directors. %All Director Shareholdings is the percentage of shares owned by all directors. Large Blockholder on Audit Committee is an indicator if a non-inside director with at least 5% shares sits on the board's audit committee. Firm Size is the natural log of the book value of assets.

Table 4

Empirical Results for Probit Models or Regression

on Various Definitions of Audit Committee Independence

	Predicted Sign	Audit Committee is 100%Independent (Probit Model)	Audit Committee Greater than 50% Independent (Probit Model)	%Outsiders on Audit Committee (Regression)
	(1)	(2)	(3)	(4)
Intercept		.87 (3.91)^b	.85 (1.94)	3.78 (6.67)^a
Growth Opportunities	-	-.08 (2.79)^c	-.12 (4.37)^b	-.13 (-2.16)^b
Negative Income	-	-.47 (3.84)^b	-.19 (0.31)	-.59 (-1.90)^c
CEO is on Nominating Committee	-	-.24 (6.37)^a	.08 (0.30)	-.31 (-2.48)^b
CEO is on Compensation Committee	-	-.51 (7.73)^b	-.84 (17.11)^a	-0.79 (-3.49)^a
Debt and/or Preferred Stock	+	.06 (0.04)	-.24 (0.44)	.08 (0.23)
%CEO Shareholdings	-	-1.86 (1.70)	.56 (0.12)	-2.06 (-1.22)
Large Blockholder on Audit Committee	-	-3.25 (12.70)^a	-3.21 (19.11)^a	-3.72 (-4.26)^a
Firm Size	?	-.09 (4.84)^b	-.14 (4.54)^b	-.08 (-1.53)
Dummy (1992)	?	.05 (0.33)	.23 (2.62)^c	.10 (0.82)

^{a} significant at the .01 level
^{b} significant at the .05 level
^{c} significant at the .10 level

A probit model is used for the the dichotomous variables in columns (2) and (3).
A logistical transformation using the formula $\ln((pct./1\text{-}pct.)+1)$ is applied to the dependent variable in column (4).

Coefficients and (χ^2 Values) are in columns (2) and (3); Coefficients and (t-statistic) are in column (4).

Independent Variable Definitions
Growth Opportunities is the three-year market value of the total firm over the three-year assets-in-place ending on the fiscal year prior to the shareholders' meeting. Negative Income 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 CEO is on Nominating Committee and CEO is on Compensation Committee are indicators if the CEO is a sitting member of either committee, respectively. Debt and/or Preferred Stock is an indicator if the firm has either long-term debt or preferred stock in its capital structure. %CEO Shareholdings is the percentage of shares owned by the CEO. Large Blockholder on Audit Committee is an indicator if a non-inside director with at least 5% shares sits on the board's audit committee. Firm Size is the natural log of the book value of assets. Dummy (1992) is an indicator if the proxy date is from July 1, 1991 to June 30, 1992, and zero otherwise.

Table 5

Empirical Results for Probit Models or Logistical Regressions

on Various Definitions of Audit Committee Independence By Year

	100% Independence 1992 (1)	100% Independence 1993 (2)	51% Independence 1992 (3)	51% Independence 1992 (4)	%Outsiders 1992 (5)	%Outsiders 1993 (6)
Intercept	.60 (1.01)	1.25 (3.89)^b	.75 (0.70)	1.11 (1.78)	3.42 (4.37)^a	4.35 (5.32)^a
Growth Opportunities	-.10 (2.89)^c	-.07 (1.06)	-.16 (3.93)^b	-.07 (0.79)	-.17 (-1.91)^c	-.10 (-1.15)
Negative Income	-.75 (3.20)^c	-.31 (1.11)	0.06 (0.01)	-.36 (0.92)	-.74 (-1.42)	-.49 (-1.25)
CEO is on Nominating Committee	-.14 (0.96)	-.36 (6.91)^a	.06 (0.05)	.12 (0.37)	-.19 (-1.05)	-.45 (-2.46)^a
CEO is on Compensation Committee	-.39 (2.88)^c	-.74 (5.80)^b	-.71 (6.63)^a	-1.00 (10.58)^a	-.61 (-2.09)^b	-1.11 (-3.04)^a
Debt and/or Preferred Stock	.28 (0.50)	-.19 (0.22)	-.28 (0.34)	.20 (0.15)	.30 (0.62)	-.19 (-0.37)
%CEO Shareholdings	-2.51 (1.61)	-1.07 (0.28)	.14 (0.00)	1.04 (0.18)	-2.91 (-1.24)	-1.12 (-0.45)
Large Blockholder on Audit Committee	-3.38 (7.37)^a	-3.12 (5.40)^b	-3.04 (10.04)^a	-3.47 (9.19)^a	-3.57 (-3.08)^a	-3.96 (-2.95)^a
Firm Size	-.08 (1.98)	-.10 (3.16)^c	-.19 (3.95)^b	.08 (1.06)	-.05 (-0.68)	-.11 (-1.55)

^{a} significant at the .01 level
^{b} significant at the .05 level
^{c} significant at the .10 level

A probit model is used for the dichotomous variables in columns (1) – (4). Coefficients and (χ^2 Values) are reported.
A logistical transformation using the formula $\ln((pct./1-pct.)+1)$ is applied to the dependent variable in columns (5) and (6). Coefficients and (t-statistic) are reported.

Independent Variable Definitions
Growth Opportunities is the three-year market value of the total firm over the three-year assets-in-place ending on the fiscal year prior to the shareholders' meeting. Negative Income 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. CEO is on Nominating Committee and CEO is on Compensation Committee are indicators if the CEO is a sitting member of either committee, respectively. Debt and/or Preferred Stock is an indicator if the firm has either long-term debt or preferred stock in its capital structure. %CEO Shareholdings is the percentage of shares owned by the CEO. Large Blockholder on Audit Committee is an indicator if a non-inside director with at least 5% shares sits on the board's audit committee. Firm Size is the natural log of the book value of assets. Dummy (1992) is an indicator if the proxy date is from July 1, 1991 to June 30, 1992, and zero otherwise.

Table 6

Regression Results for Economic Attributes on Audit Committee Independence and Other Variables

	CEO's Wage and Bonus			Long-term Debt/Assets			Log(Audit Committee Meetings)		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Intercept	-1.37 (-7.7)[a]	-1.26 (-6.9)[a]	-1.23 (-6.4)[a]	.17 (10.9)[a]	.15 (7.8)[a]	.15 (7.8)[a]	.55 (5.6)[a]	.46 (4.8)[a]	.55 (5.6)[a]
Independent Audit Committee									
100% Independent	-.03 (-0.8)			.00 (0.0)			.36 (0.7)		
GT 50% Independent		-.17 (-2.7)[a]			.02 (1.1)			.13 (3.5)	
%Outside Directors on Audit Committee			-.22 (-2.3)[b]			.03 (1.4)			.20 (3.5)[a]
Firm Size	.28 (13.8)[a]	.28 (14.0)[a]	.28 (14.0)[a]				.07 (5.6)[a]	.07 (5.4)[a]	.07 (5.4)[a]
Net Income/Assets	2.45 (7.2)[a]	2.40 (7.1)[a]	2.41 (7.1)[a]	-.31 (-3.2)[a]	-.31 (-3.2)[a]	-.31 (-3.2)[a]			
Stock Return	.15 (1.9)[c]	.15 (1.9)[c]	.15 (1.9)[c]						
Std. Dev. Of Net Income/Assets	-.00 (-3.0)[a]	-.00 (-3.1)[a]	-.00 (-3.1)[a]	-.00 (-1.3)	-.00 (-1.4)	-.00 (-1.4)	.00 (3.0)[a]	.00 (3.0)[a]	.00 (2.9)[a]
CEO on Compensation Committee	-.02 (-0.3)	-.05 (-0.7)	-.06 (-0.7)						
CEO Tenure	.05 (1.7)[c]	.05 (1.7)[c]	.05 (1.7)[c]						
Utility	-.57 (-7.6)[a]	-.58 (-7.7)[a]	-.57 (-7.7)[a]				.10 (2.2)[b]	.10 (2.3)[b]	.10 (2.2)[b]
PP&E/Assets				.23 (10.1)[a]	.23 (10.1)[a]	.23 (10.2)[a]			
Growth Opportunities				-.02 (-3.3)[a]	-.02 (-3.1)[a]	-.02 (-3.1)[a]			

[a] significant at the .01 level
[b] significant at the .05 level
[c] significant at the .10 level

Variable Definitions
CEO's Wage and Bonus is the amount that the CEO was paid in both wage and bonus the fiscal year prior to the annual shareholders' meeting. LT Debt/Assets is the three-year ratio of long term debt (book value) over the book value of assets ending on the fiscal year prior to the shareholders' meeting. Audit Committee Meetings is the number of audit committee meetings and telephone conference calls for the fiscal year prior to the shareholders' meeting.

Firm Size is the natural log of the book value of assets. Net Income/Assets is the ratio of the firm's income before extraordinary income to the book value of assets for the fiscal year prior to the shareholders' meeting. Stock Return is the one year's raw stock return for the fiscal year prior to the shareholders' meeting. Std. Dev. Of Net Income/Assets is the 5 year standard deviation of the ratio of net income/assets.

CEO is on Compensation Committee is an indicator if the CEO is a sitting member of the compensation committee. CEO Tenure is the number of years the CEO has been on the board. Utility is an indicator if the firm is a utility. PP&E/Assets is the ratio of the firm's net PP&E over the book value of assets ending the fiscal year prior to the shareholders' meeting. Growth Opportunities is the three-year market value of the total firm over the three-year assets-in-place ending on the fiscal year prior to the shareholders' meeting.