Audit Committee Characteristics: An Australian Empirical Study

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Abstract

This study provides a descriptive analysis of the audit committee characteristics of a sample of 200 Australian companies. Data were gathered on the following characteristics: independence; expertise; size and activity. Regression analysis was performed to determine the level of association between these characteristics and between several board of director characteristics and other variables.

The findings of this study indicate, in a voluntary setting, the audit committees of Australian companies, on average, had a high proportion of independent members. Furthermore, a number of board of director characteristics were found to be significantly associated with audit committee characteristics.
INTRODUCTION

In recent years, there has been a dramatic increase in the number of high profile corporate collapses in Australia, including One Tel, Harris Scarfe and HIH Insurance. This phenomenon may be due to a lack of effective corporate governance which is widely accepted as being the key failure behind most corporate collapses (Leung and Cooper 2003; Fridman 2005). This has highlighted the need for more rigorous systems of corporate governance controls to be established on the shareholders’ behalf to discourage managers from pursuing objectives that do not maximise shareholder wealth. These controls are aimed at either aligning managers and shareholders incentives or limiting the opportunistic activities of managers (Dellaportas et al., 2005).

Audit committees are one example of a corporate governance control. The research literature and various review committees have suggested that a number of audit committee characteristics are linked to an audit committee’s effectiveness at achieving its objectives. Following the recommendations of the Blue Ribbon Committee (1999), the audit committees of companies listed on the NYSE and NASD must: be comprised solely of directors who are independent from the company and its management; and have a certain level of financial literacy and accounting or related financial management expertise. In Australia, the ASX Corporate Governance Council (2003) recommended that: a majority of directors on an audit committee should be independent and that the committee’s chairperson be independent; all audit committee members be financially literate and at least one member must have financial expertise; and have at least three members. Best practice guidelines have suggested that audit committees should meet at least three or four times per year (Cadbury Committee 1992; Price Waterhouse 1993; KPMG 1999).

1 The main objectives of an audit committee according to Australian best practice guidelines include: improving the credibility and objectivity of the financial reporting process; improving the efficiency of the board of directors by delegating tasks to the committee; and facilitating the maintenance of the external auditor’s independence (AARF et al., 2001, p. 6)
This study has two main objectives. The first objective is to provide a descriptive analysis of the independence, expertise, activity and size of the audit committees of a sample of Australian listed companies in 2001. This is a time period prior to new ASX Listing Rules on audit committees that became effective from the start of 2003\(^2\). Therefore, this study provides useful information to regulators such as the ASX on the characteristics of audit committees in a time period not affected by regulation. The second (and primary) objective of the study is to analyse whether these audit committee characteristics are associated with a number of independent variables such as board composition, board activity, auditor type and leverage. This information will be useful to regulators and companies to better understand the factors driving several characteristics of audit committees that have been found to be positively associated with measures of earnings quality and, ultimately, financial reporting quality (e.g., Klein 2002a; Xie et al., 2003; Bedard et al., 2004).

The remainder of the paper is structured as follows. First, there is a review of the prior literature on audit committee characteristics and the factors associated with them, which leads to the development of the hypotheses tested in the paper. This is followed by the research methodology section. The main findings from the study are then discussed. Finally, the summary, conclusions and suggestions for future research are presented.

**PRIOR LITERATURE**

There is a large body of research that has examined a number of issues concerning audit committee characteristics. Vicknair et al. (1993), who undertook a descriptive analysis of characteristics such as audit committee independence, concluded that the existence of “grey” area directors may potentially violate the independence of the audit committee. DeZoort (1998), DeZoort and Salterio (2001) and McDaniel et al. (2002) conducted

\(^2\) ASX Listing Rule 12.7 requires all entities in the S & P All Ordinaries Index at the beginning of their financial years to have an audit committee during the year. A further requirement of this listing rule is that all entities in the top 300 of the Index are required to comply with the ASX Corporate Governance Council’s best practice recommendations relating to the composition, operation and responsibility of the audit committee.
experiments or surveys to investigate audit committee expertise. Overall, these studies found that the experience and knowledge of audit committee members were positively associated with judgements they made. Also, a large number of studies have examined the relationship between audit committee characteristics and earnings management or earnings quality (e.g., Klein 2002a; Xie et al., 2003; Bedard et al., 2004; Choi et al., 2004; Van der Zahn and Tower 2004; Davidson et al., 2005; Vafeas 2005; Yang and Krishnan 2005; Rahman and Ali 2006).

The main focus in this study is on the factors associated with the characteristics of audit committees. Much of the prior empirical research in this area has used US data. Menon and Williams (1994) found a significant association between the proportion of outside directors on the board and the frequency of audit committee meetings. Deli and Gillan (2000) found that audit committee independence and activity was significantly associated with firm growth opportunities, managerial ownership, firm size and leverage. Klein (2002b) found that audit committee independence was positively associated with board size and board independence and negatively associated with firms’ growth opportunities and firms reporting consecutive losses. In a Canadian study, Beasley and Salterio (2001) found that audit committee independence was associated with: larger boards; boards with more outside directors; and a segregation between the board chair and CEO positions. A recent Spanish study by Mendez and Garcia (2007) found evidence of a negative relationship between audit committee activity and leverage, as well as a concentrated large shareholder ownership structure. Rainsbury (2004), who examined the factors related to the membership of New Zealand audit committees, found that independent non-executive directors and those with financial expertise were more likely to be members of audit committees.

Cotter and Silvester (2003) is the only known Australian study to examine factors associated with audit committee characteristics. Specifically, they tested the relationship between audit committee independence and the extent of: managerial ownership of equity;
dividend payout; leverage; and substantial shareholders on the board. Furthermore, they tested the relationship between the independence of audit committees and firm value. Evidence was found of a significant positive association between audit committee and board independence. Higher audit committee independence was also found to be associated with reduced monitoring by debt-holders when leverage was low.

This study makes a contribution to the literature on audit committee characteristics. First, it uses data on Australian companies, whereas many of the prior studies have used data on companies in the United States. Audit committees in Australia have not been subject to the same level of regulation as those in the United States. This study uses data from a sample of Australian companies in 2001. During this period, in accordance with ASX listing rules, Australian listed companies were only required to disclose in their annual reports whether or not they had established an audit committee. Therefore, Australia is an opportune setting for the examination of audit committee characteristics because in 2001 there was no regulation impacting on audit committee characteristics. Second, this study examines a number of audit committee characteristics that were not analysed by Cotter and Silvester (2003). Furthermore, Cotter and Silvester (2003) used the top 200 Australian companies in 1997, whereas this study uses a random sample of the top 500 Australian companies in 2001. Therefore, the results of this study are generalisable to a wider range of Australian listed companies.

EXPERIMENTAL VARIABLES AND HYPOTHESES

Several variables will be tested in this study for their relationship with audit committee characteristics. The first group of variables consists of various board of director characteristics and the second group consists of several other variables, i.e., company leverage, existence of a Big 5 auditor and the extent of managerial ownership of equity.
Board characteristics

An audit committee is ‘…a committee of the board of directors and as such it assists the directors to discharge the board’s responsibilities of oversight and corporate governance’ (AARF et al., 2001, p. 7). Hence, it stands to reason that the board will have a major influence on the audit committee. Audit committees can be strengthened through increasing their independence, expertise, activity and size. Outside directors on the board have the incentive to strengthen their audit committees to help reduce information asymmetries between the outside directors and management (Beasley and Salterio 2001). Furthermore, larger boards should obtain greater monitoring benefits from audit committees than smaller boards, and should be more likely to rely on audit committees (Menon and Williams 1994). This reflects the operational efficiencies gained from assigning certain responsibilities to the audit committee.

As the number of outsider directors on the board and board size increases, the outside directors also have the ability to strengthen their audit committees by adding additional outside directors to the committee and those with relevant financial reporting knowledge and expertise (Beasley and Salterio 2001). This argument is supported by Klein (2002b, p. 438) who observed that ‘the larger the pool of outside directors on the board, the easier it is for the board to have an independent audit committee’. Similarly, as the level of financial expertise on the board increases, firms have the capacity to increase the overall financial expertise of the audit committee. Similar arguments can be raised in relation to board size and audit committee size. Furthermore, the greater the activity level of the board, the greater the activity level of the audit committee is likely to be.

There is also empirical support for the influence of board characteristics on audit committee characteristics. Klein (2002b) reported that the independence of the audit committee increased with board size and board independence and decreased with firms'
growth opportunities and firms reporting consecutive losses. The results of Menon and Williams (1994) indicated that audit committee meeting frequency was associated with the proportion of outside directors and firm size. Collier and Gregory (1999) found that high quality auditors and leverage had a positive association with audit committee activity (measured by the number and duration of meetings), while the inclusion of insiders on the audit committee was negatively related to activity.

Based on the above discussion, the following hypotheses are proposed:

H1a: The independence of the board is positively associated with the independence of the audit committee.

H1b: The expertise of the board is positively associated with the expertise of the audit committee.

H1c: The activity of the board is positively associated with the activity of the audit committee.

H1d: The size of the board is positively associated with the size of the audit committee.

Other factors

Accounting-based covenants are written into debt contracts by debtholders to monitor management and shareholders (Jensen and Meckling 1976). However, firms with higher leverage have greater incentives to manage their earnings as they may be closer to their debt covenant constraints. Therefore, firms will have incentives for improved monitoring of the financial reporting process as the level of leverage increases (Deli and Gillan 2000; Beasley and Salterio 2001; Klein 2002b).

This suggests the following hypothesis:
**H2:** The company’s leverage is positively associated with the independence, expertise, activity and size of the audit committee.

According to best practice guidelines, one of the main objectives of an audit committee is facilitating the maintenance of the independence of the external auditor (AARF et al., 2001, p. 6). Higher quality auditors are expected to have greater incentives to encourage their clients’ boards of directors to strengthen the audit committee through improved independence, expertise, activity and size. This is because these audit committee characteristics are likely to influence financial reporting quality. If higher quality auditors are determined by their size, because of their larger client base, such larger auditors have more to lose in the event of a loss of reputation (Becker et al., 1998). This loss of reputation can occur if it becomes known in the community that the auditors are associated with clients that engage in earnings management that reduces the quality of their financial reporting. The larger potential loss for higher quality auditors results in a relatively greater incentive to remain independent of their clients compared to lower quality auditors that have a much smaller client base (Becker et al., 1998). Being associated with clients whose audit committees have higher levels of independence and expertise, meet more often, and are larger, can enhance the auditor’s independence.

The following hypothesis is proposed:

**H3:** The existence of a Big 5 auditor is positively associated with the independence, expertise, activity and size of the audit committee.

Jensen and Meckling (1976) assert that increased ownership of equity by management can mitigate agency conflicts, thereby improving the alignment between the interests of management and shareholders. Therefore, agency theory would predict that as the extent of managerial ownership of equity increases, there is less demand for monitoring by audit committees (Beasley and Salterio 2001). Therefore, the following hypothesis is proposed:
H4: The extent of managerial ownership of equity is negatively associated with the
independence, expertise, activity and size of the audit committee.

RESEARCH METHODOLOGY

Sample selection

The population from which the sample was drawn was the top 500 Australian
companies listed on the Australian Stock Exchange (ASX) with financial years ending during
2001. This year was selected as the base year to avoid the confounding effect of ASX Listing
Rule 12.7 that became effective from 1 January 2003. Banks, trusts and foreign companies
were excluded from the population prior to the selection of the sample which reduced the
population to 463 companies. From an analysis of the Horwath 2002 Corporate Governance
Report (Psaros and Seamer 2002), and the Annual Reports Collection database, it was
determined that 422 of these companies had an audit committee in 2001. A total of 37
companies disclosed that they did not have an audit committee. For four companies, it was
not possible to determine whether an audit committee existed.

From the population of 422 companies with an audit committee in 2001, a random
sample of 200 companies was selected to form the basis for the empirical tests undertaken in
the study. The following table summarises the sample size used:

Take in Table 1

Empirical model and measurement of variables

The empirical tests undertaken in this study test the association between audit
committee characteristics, board characteristics and several other variables. Therefore, the
following regression model for audit committee characteristics was estimated for all firms $k$
in the sample with an audit committee for year \( t \). Separate regressions were run for each audit committee characteristic.

\[
AC_{k,t} = a_t + b_{0t} BDIND + b_{1t} BDACCEXP + b_{2t} BDLEGEXP + b_{3t} BDMEET + b_{4t} BDSIZE + b_{5t} LEV + b_{6t} AUDITOR + b_{7t} MGOWN + b_{8t} LNSIZE + \varepsilon_t
\]

The dependent variable (AC) in the model represents each of the individual audit committee characteristics, i.e., independence, accounting expertise, legal expertise, activity and size. Audit committee independence (ACIND) was measured by the proportion of directors on the audit committee who were classified as independent. Individual director independence was measured using the definition of independence as specified by the ASX Corporate Governance Council (2003). This definition is given in Appendix 1. The identification of whether company directors were independent according to this definition was based solely on information disclosed in the companies’ annual reports. Board independence (BDIND) was also measured in a similar way. These measures for audit committee and board independence have been commonly used in the literature; for example Carcello and Neal (2000); Klein (2002a); Klein (2002b); and Cotter and Silvester (2003).

The extent of director expertise on the audit committee and board was measured using two variables. First, following Van der Zahn and Tower (2004) and Bedard et al. (2004), the expertise of individual directors was measured by whether they had professional accounting qualifications such as being either a Certified Practising Accountant (CPA) or a Chartered Accountant (CA). Therefore, the first audit committee and board expertise variable used was measured as the proportion of audit committee (ACACCEXP) and board members (BDACCEXP) with professional accounting qualifications. Second, director expertise was also measured by whether the directors had professional legal qualifications. A similar measurement was also used in papers such as Xie et al. (2003) and Van der Zahn and Tower (2004). Therefore, the second audit committee and board expertise variable used was
measured as the proportion of audit committee (ACLEGEXP) and board members (BDLEGEXP) with professional legal qualifications.

The levels of audit committee (ACMEET) and board activity (BDMEET) were measured by the number of audit committee and board meetings held during the year. Xie et al. (2003) and Van der Zahn and Tower (2004) also used the number of audit committee meetings as a measure of audit committee activity. Audit committee (ACSIZE) and board size (BDSIZE) were measured by the number of directors on the audit committee and board. This variable has been tested in a number of previous studies (Xie et al., 2003; Bedard et al., 2004; Choi et al., 2004; Davidson et al., 2005).

The other independent variables were measured as follows: company leverage (LEV) was measured by the ratio of total liabilities to total assets; the existence of a Big 5 auditor (AUDITOR) was coded as 1 if the company’s auditor was a Big 5 firm and 0 otherwise; and the extent of managerial ownership of equity (MGOWN) was measured by the proportion of equity held by non-independent directors. Company size (LNSIZE) was used as a control variable and was measured by the natural log of total assets.

RESULTS

Descriptive statistics

Table 2 provides the descriptive statistics for the variables used in the models, analysing the association between audit committee characteristics, board characteristics and the other independent variables. Panel A shows that the proportion of independent audit committee members ranged between 0 and 1, with the average being 0.5277. For the proportion of audit committee members with accounting expertise, there was a range of between 0 and 1, with an average of 0.3257. For the proportion of audit committee members with legal expertise, there was a range of between 0 and 1, with an average of 0.1303. The
audit committees met between 0 and 9 times during the year, with an average of approximately 3 meetings per year. The size of the audit committees ranged between 2 and 7 members with an average of approximately 3 members.

These descriptive statistics indicate that there was considerable variation in these audit committee variables for the sample companies. Prior US studies such as Yang and Krishnan (2005) provide evidence that audit committees in the United States have much higher proportions of independent directors, which reflects the greater degree of audit committee regulation. This further supports the use of Australian data in this study to avoid the confounding effect of regulation.

Panel A also shows that, on average, the boards of the sample companies had: 0.4161 of members who were independent; 0.2281 of members with accounting expertise and 0.1084 of members with legal expertise. The boards met an average of approximately 12 times per year and had an average of approximately 6 members. The average leverage for the sample companies was 0.47672 and the average equity ownership by non-independent directors was 0.1648. Panel B shows that 165 (82.5%) of the 200 companies in the sample had a Big 5 auditor and 35 companies (17.5%) had a non-Big 5 auditor.

Take in Table 2

Correlations

Table 3 shows the Pearson correlation coefficients for the dependent and independent variables. Several of the significant correlations provide univariate support for the hypothesised relationships between the audit committee characteristics and the independent variables. Consistent with H1a, H1b and H1d, there were significant positive correlations between: ACIND, BDIND and BDSIZE; ACACCEXP and BDACCEXP; ACLEGEXP and
BDLEGEXP; and ACSIZE and BDSIZE. For the other independent variables, univariate support was only found for H4 with a significant negative correlation between ACIND and MGOWN. LNSIZE was significantly correlated with most of the audit committee variables, which confirms the need to control for company size in the multivariate tests. Another interesting result was that the two measures of audit committee expertise (ACACCEXP and ACLEGEXP) were significantly negatively correlated with each other. This suggests that the two forms of expertise are substitutes for each other. Therefore, the directors on audit committees tend to have either accounting or legal expertise, but not both.

Take in Table 3

Regression results

Table 4 contains the results from the regressions of each of the audit committee characteristics on the various independent variables. Overall, each of the regression models had adjusted $R^2$'s of 0.592 (ACIND), 0.612 (ACACCEXP), 0.557 (ACLEGEXP), 0.160 (ACMEET) and 0.112 (ACSIZE). Furthermore, each model was significant at the 0.01 level.

Several of the independent variables were significant in each of the regression models. For the board characteristic variables, the following were significant with the predicted sign: BDIND (ACIND model); BDACCEXP (ACACCEXP model); BDLEGEXP (ACLEGEXP model); BDIND, BDMEET and BDSIZE (ACMEET model); and BDSIZE (ACSIZE model). None of the other independent variables were significant with the predicted sign in any of the regression models. LNSIZE was significant in both the ACLEGEXP and ACMEET models. Therefore, while these regression results provide support for H1a, H1b, H1c and H1d, no multivariate support was found for H2, H3 or H4.

Take in Table 4
Additional analysis

Similar to Dhaliwal et al. (2006), a summary measure of overall audit committee strength was calculated as an alternative dependent variable to the individual audit committee characteristics. This variable (AC_GOV_SCORE) was calculated as the sum of a number of dummy variables based on each characteristic. These dummy variables were calculated as follows: an independence dummy variable was measured as 1 if 50% or greater of the audit committee members were independent and 0 otherwise; two expertise dummy variables were measured as 1 if at least one audit committee member had professional accounting or legal qualifications and 0 otherwise; an activity dummy variable was measured as 1 if there were at least three audit committee meetings held during the year and 0 otherwise; a size dummy variable was measured as 1 if there were at least three members on the audit committee and 0 otherwise. There were significant positive correlations between AC_GOV_SCORE and BDIND, BDACCEXP, BDLEGEXP, BDSIZE, AUDITOR and LNSIZE. AC_GOV_SCORE was also significantly negatively correlated with MGOWN. An analysis of results from an ordinal regression model for AC_GOV_SCORE shows that BDIND, BDACCEXP and BDLEGEXP were each positively significant at the 0.01 level. BDSIZE and LNSIZE were also significant at the 0.05 level. These results support those for the regressions using the individual audit committee characteristics.

SUMMARY AND CONCLUSIONS

This study had two main objectives. The first was to provide a descriptive analysis of the independence, expertise, activity and size of the audit committees of a sample of Australian listed companies in 2001. The second objective was to analyse whether these audit committee characteristics were associated with a number of board of director characteristics.
Empirical research on the characteristics of Australian audit committees is limited. However, research on these issues for Australian companies is particularly timely given the new ASX Listing Rule that became effective from the start of 2003. The time period for this study is 2001 which avoids the confounding effects of these new mandatory requirements. Research on the audit committees of Australian companies will also be of interest to other countries with limited regulation of audit committees.

The descriptive statistics on the audit committee characteristics examined in this study provide some mixed results. For independence, the average proportion of independent directors on the audit committees was 52.77%. This illustrates that the majority of companies in 2001 were complying with the ASX Corporate Governance Council’s recommendation that audit committees should consist of a majority of independent directors. However, some companies had no independent directors on their audit committee. Two measures of audit committee expertise were used in this study. The results showed that the average proportions of audit committee members with accounting and legal qualifications were 32.57% and 13.03% respectively. This also shows that many companies in 2001 were already complying with the ASX Corporate Governance recommendation that at least one audit committee member must have financial expertise. However, there were some audit committees with no members who had professional qualifications in accounting or law. Finally, the audit committees held an average of approximately 3 meetings in 2001 and had an average of approximately 3 members. These are consistent with best practice recommendations for audit committee activity and size.

The regression results provide strong support for the influence of the board of directors on the composition and activity of the audit committee. There was a significant positive relationship between each of the audit committee characteristics and the related board characteristics, eg audit committee independence and board independence. Board
independence and board size were also significantly positively related to the number of audit committee meetings. Furthermore, company size was significantly positively related to the proportion of audit committee directors with professional legal qualifications and the number of audit committee meetings. However, there was no support for the influence of leverage, auditor or equity ownership by non-independent directors on audit committee characteristics. Therefore, this study confirms the influence of the board of directors on the characteristics of audit committees that was found in several prior studies (Beasley and Salterio 2001; Klein 2002b; Cotter and Silvester 2003). Regulators and companies will find these results useful to better understand the factors driving several characteristics of audit committees that have been found to be positively associated with measures of financial reporting quality.

Overall, the results of this study indicate that the audit committees of Australian companies, on average, had a high proportion of independent members. In addition, the proportions of audit committee members with accounting and legal expertise were low. This suggests a limited availability of directors with professional accounting and legal qualifications. Furthermore, there was evidence of a significant association between a number of board of director characteristics and audit committee characteristics.

There are two opportunities for future research that can be identified. First, the sample of companies could be extended to include non-top 500 companies to determine if the results are also generalisable to smaller listed Australian companies. Second, the tenure of individual audit committee members is an additional characteristic that is worthy of investigation.

Appendix 1

An independent director is defined as a non-executive director who:
(1) is not a substantial shareholder of the company or an officer of, or otherwise associated directly with, a substantial shareholder of the company;

(2) within the last 3 years has not been employed in an executive capacity by the company or another group member, or been a director after ceasing to hold any such appointment;

(3) within the last 3 years has not been a principal of a material professional adviser or a material consultant to the company or another group member, or an employee materially associated with the service provided;

(4) is not a material supplier or customer of the company or other group member, or an officer of or otherwise associated directly or indirectly with a material supplier or customer;

(5) has no material contractual relationship with the company or another group member other than as a director of the company;

(6) has not served on the board for a period which could, or could reasonably be perceived to materially interfere with the director’s ability to act in the best interests of the company; or

(7) is free from any interest and any business or other relationship which could, or could reasonably be perceived to materially interfere with the director’s ability to act in the best interests of the company. (ASX Corporate Governance Council 2003, p. 20)
REFERENCES


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KPMG, 1999, *Shaping the audit committee agenda*.


Table 1 Summary of sample size used for empirical tests

<table>
<thead>
<tr>
<th></th>
<th>Number of companies</th>
</tr>
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<tbody>
<tr>
<td>Top 500 ASX listed companies in 2001</td>
<td>500</td>
</tr>
<tr>
<td>Less,</td>
<td></td>
</tr>
<tr>
<td>• Banks, trusts and foreign companies</td>
<td>37</td>
</tr>
<tr>
<td>• Companies without audit committees</td>
<td>37</td>
</tr>
<tr>
<td>• Audit committee existence could not be determined</td>
<td>4 78</td>
</tr>
<tr>
<td>Companies with audit committees</td>
<td>422</td>
</tr>
<tr>
<td>Random sample</td>
<td>200</td>
</tr>
</tbody>
</table>
Table 2 Descriptive statistics for 200 randomly selected ASX listed companies in 2001

Panel A Continuous variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std Dev</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACIND</td>
<td>0</td>
<td>1.00</td>
<td>0.5277</td>
<td>0.33602</td>
<td>-0.121</td>
<td>-1.055</td>
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<tr>
<td>ACACCEXP</td>
<td>0</td>
<td>1.00</td>
<td>0.3257</td>
<td>0.29593</td>
<td>0.626</td>
<td>-0.406</td>
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<tr>
<td>ACLEGEXP</td>
<td>0</td>
<td>1.00</td>
<td>0.1303</td>
<td>0.19586</td>
<td>1.448</td>
<td>1.817</td>
</tr>
<tr>
<td>ACMEET</td>
<td>0</td>
<td>9</td>
<td>3.05</td>
<td>1.432</td>
<td>1.128</td>
<td>1.784</td>
</tr>
<tr>
<td>ACSIZE</td>
<td>2</td>
<td>7</td>
<td>3.20</td>
<td>1.020</td>
<td>1.252</td>
<td>2.208</td>
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<tr>
<td>BDIND</td>
<td>0</td>
<td>1.00</td>
<td>0.4161</td>
<td>0.25262</td>
<td>0.061</td>
<td>-0.854</td>
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<tr>
<td>BDACCEXP</td>
<td>0</td>
<td>0.75</td>
<td>0.2281</td>
<td>0.17894</td>
<td>0.578</td>
<td>-0.157</td>
</tr>
<tr>
<td>BDLEGEXP</td>
<td>0</td>
<td>0.50</td>
<td>0.1084</td>
<td>0.12869</td>
<td>1.084</td>
<td>0.550</td>
</tr>
<tr>
<td>BDMEET</td>
<td>3</td>
<td>33</td>
<td>11.57</td>
<td>4.289</td>
<td>1.041</td>
<td>3.461</td>
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<tr>
<td>BDSIZE</td>
<td>3</td>
<td>17</td>
<td>6.36</td>
<td>2.285</td>
<td>1.529</td>
<td>3.941</td>
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<tr>
<td>LEV</td>
<td>0.006833</td>
<td>1.28714</td>
<td>0.47672</td>
<td>0.20434</td>
<td>-0.001</td>
<td>0.635</td>
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<td>MGOWN</td>
<td>0</td>
<td>0.92</td>
<td>0.1648</td>
<td>0.21548</td>
<td>1.447</td>
<td>1.535</td>
</tr>
<tr>
<td>LNSIZE</td>
<td>15.54726</td>
<td>25.16545</td>
<td>19.1692</td>
<td>1.78319</td>
<td>0.651</td>
<td>0.350</td>
</tr>
</tbody>
</table>

Panel B Dichotomous variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency of 1s</th>
<th>Frequency of 0s</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUDITOR</td>
<td>165 (82.5%)</td>
<td>35 (17.5%)</td>
</tr>
</tbody>
</table>

ACIND = Proportion of independent directors on audit committee
ACACCEXP = Proportion of directors on audit committee with accounting qualifications
ACLEGEXP = Proportion of directors on audit committee with legal qualifications
ACMEET = Number of audit committee meetings
ACSIZE = Number of audit committee members
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MGOWN = Proportion of equity held by non-independent directors
LNSIZE = Natural log of total assets
AUDITOR: 1 = Big 5 auditor; 0 = Non-big 5 auditor
Table 3 Pearson correlations for 200 randomly selected ASX listed companies in 2001

<table>
<thead>
<tr>
<th></th>
<th>ACIND</th>
<th>ACACCEXP</th>
<th>ACLEGEXP</th>
<th>ACMEET</th>
<th>ACSIZE</th>
<th>BDIND</th>
<th>BDACCEXP</th>
<th>BDLEGEXP</th>
<th>BDMEET</th>
<th>BDSIZE</th>
<th>LEV</th>
<th>AUDITOR</th>
<th>MGOWN</th>
<th>LNSIZE</th>
</tr>
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<tbody>
<tr>
<td>ACIND</td>
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</tr>
<tr>
<td>ACACCEXP</td>
<td>-0.111 (0.114)</td>
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</tr>
<tr>
<td>ACLEGEXP</td>
<td>-0.071 (0.0314)</td>
<td>-0.246** (0.000)</td>
<td>1</td>
<td></td>
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<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>ACMEET</td>
<td>0.211** (0.002)</td>
<td>0.052 (0.461)</td>
<td>0.034 (0.628)</td>
<td>1</td>
<td></td>
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</tr>
<tr>
<td>ACSIZE</td>
<td>0.031 (0.660)</td>
<td>-0.100 (0.154)</td>
<td>-0.069 (0.324)</td>
<td>0.144* (0.040)</td>
<td>1</td>
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</tr>
<tr>
<td>BDIND</td>
<td>0.744** (0.000)</td>
<td>-0.139* (0.047)</td>
<td>-0.133 (0.058)</td>
<td>0.233** (0.001)</td>
<td>0.128 (0.067)</td>
<td>1</td>
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</tr>
<tr>
<td>BDACCEXP</td>
<td>-0.121 (0.083)</td>
<td>0.785** (0.000)</td>
<td>-0.217** (0.002)</td>
<td>-0.047 (0.506)</td>
<td>0.013 (0.856)</td>
<td>-0.143* (0.041)</td>
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</tr>
<tr>
<td>BDLEGEXP</td>
<td>-0.147* (0.036)</td>
<td>-0.102 (0.146)</td>
<td>0.741** (0.000)</td>
<td>0.076 (0.277)</td>
<td>-0.085 (0.223)</td>
<td>-0.135 (0.054)</td>
<td>-0.171* (0.014)</td>
<td>1</td>
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<td></td>
</tr>
<tr>
<td>BDMEET</td>
<td>-0.035 (0.614)</td>
<td>0.040 (0.566)</td>
<td>-0.088 (0.208)</td>
<td>0.135 (0.834)</td>
<td>0.015 (0.831)</td>
<td>-0.015 (0.134)</td>
<td>0.105 (0.708)</td>
<td>-0.026 (0.146)</td>
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</tr>
<tr>
<td>BDSIZE</td>
<td>0.162* (0.020)</td>
<td>-0.057 (0.417)</td>
<td>0.067 (0.340)</td>
<td>0.301** (0.000)</td>
<td>0.344** (0.000)</td>
<td>0.170* (0.205)</td>
<td>-0.098 (0.984)</td>
<td>-0.001 (0.235)</td>
<td>0.083 (0.000)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LEV</td>
<td>-0.071 (0.310)</td>
<td>0.040 (0.565)</td>
<td>0.040 (0.573)</td>
<td>0.029 (0.676)</td>
<td>0.130 (0.064)</td>
<td>-0.025 (0.720)</td>
<td>0.026 (0.712)</td>
<td>0.133 (0.058)</td>
<td>0.075 (0.283)</td>
<td>0.100 (0.152)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AUDITOR</td>
<td>0.130 (0.063)</td>
<td>-0.144* (0.039)</td>
<td>0.091 (0.193)</td>
<td>0.080 (0.253)</td>
<td>0.089 (0.207)</td>
<td>0.213** (0.002)</td>
<td>-0.170* (0.015)</td>
<td>0.056 (0.423)</td>
<td>0.017 (0.813)</td>
<td>0.263** (0.000)</td>
<td>0.165* (0.018)</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MGOWN</td>
<td>-0.214** (0.002)</td>
<td>0.051 (0.204)</td>
<td>-0.041 (0.558)</td>
<td>-0.128 (0.669)</td>
<td>0.053 (0.366)</td>
<td>-0.296 (0.000)</td>
<td>0.065 (0.354)</td>
<td>-0.036 (0.605)</td>
<td>0.044 (0.492)</td>
<td>0.055 (0.435)</td>
<td>0.054 (0.439)</td>
<td>-0.143* (0.042)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>LNSIZE</td>
<td>0.203** (0.004)</td>
<td>-0.026 (0.714)</td>
<td>0.140* (0.045)</td>
<td>0.348** (0.000)</td>
<td>0.261** (0.000)</td>
<td>0.258** (0.000)</td>
<td>-0.050 (0.478)</td>
<td>0.096 (0.169)</td>
<td>0.035 (0.621)</td>
<td>0.632** (0.000)</td>
<td>0.377** (0.000)</td>
<td>0.336** (0.000)</td>
<td>-0.143* (0.041)</td>
<td>1</td>
</tr>
</tbody>
</table>

* significant at the 0.05 level (2-tailed)
** significant at the 0.01 level (2-tailed)

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LNSIZE = Natural log of total assets
Table 4 Regression estimates of audit committee characteristics on independent variables for 200 randomly selected ASX listed companies in 2001

<table>
<thead>
<tr>
<th>Variable</th>
<th>Predicted sign</th>
<th>ACIND</th>
<th>ACACCEXP</th>
<th>ACLEGEXP</th>
<th>ACMEET</th>
<th>ACSIZE</th>
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</thead>
<tbody>
<tr>
<td>Intercept</td>
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<td>0.122</td>
<td>-0.005</td>
<td>-0.147</td>
<td>-1.495</td>
<td>1.225</td>
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<tr>
<td></td>
<td></td>
<td>(0.650)</td>
<td>(-0.032)</td>
<td>(-1.298)</td>
<td>(-1.310)</td>
<td>(1.460)</td>
</tr>
<tr>
<td>BDIND</td>
<td>+</td>
<td>1.022</td>
<td>-0.029</td>
<td>-0.081</td>
<td>0.895</td>
<td>0.308</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(15.446)**</td>
<td>(-0.511)</td>
<td>(-2.029)*</td>
<td>(2.220)*</td>
<td>(0.300)</td>
</tr>
<tr>
<td>BDACCEXP</td>
<td>+</td>
<td>-0.042</td>
<td>1.323</td>
<td>-0.095</td>
<td>-0.095</td>
<td>0.256</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(-0.481)</td>
<td>(17.440)**</td>
<td>(-1.788)</td>
<td>(-0.177)</td>
<td>(0.647)</td>
</tr>
<tr>
<td>BDLEGEXP</td>
<td>+</td>
<td>-0.099</td>
<td>0.062</td>
<td>1.072</td>
<td>1.042</td>
<td>-0.670</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(-0.807)</td>
<td>(0.590)</td>
<td>(14.490)**</td>
<td>(1.397)</td>
<td>(-1.222)</td>
</tr>
<tr>
<td>BDMEET</td>
<td>+</td>
<td>-0.001</td>
<td>-0.003</td>
<td>-0.002</td>
<td>0.049</td>
<td>0.010</td>
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<tr>
<td></td>
<td></td>
<td>(-0.395)</td>
<td>(-0.922)</td>
<td>(-1.155)</td>
<td>(2.289)*</td>
<td>(0.606)</td>
</tr>
<tr>
<td>BDSIZE</td>
<td>+</td>
<td>0.005</td>
<td>0.003</td>
<td>0.001</td>
<td>0.110</td>
<td>0.134</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.551)</td>
<td>(0.363)</td>
<td>(-0.246)</td>
<td>(2.027)*</td>
<td>(3.347)**</td>
</tr>
<tr>
<td>LEV</td>
<td>+</td>
<td>-0.047</td>
<td>0.000</td>
<td>-1.153</td>
<td>-0.293</td>
<td>-0.151</td>
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<tr>
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<td></td>
<td>(-0.824)</td>
<td>(0.009)</td>
<td>(-4.409)**</td>
<td>(-0.836)</td>
<td>(0.585)</td>
</tr>
<tr>
<td>AUDITOR</td>
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<td>-0.040</td>
<td>-0.009</td>
<td>0.025</td>
<td>-0.340</td>
<td>-0.011</td>
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<tr>
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<td></td>
<td>(-0.940)</td>
<td>(-0.244)</td>
<td>(0.974)</td>
<td>(-1.317)</td>
<td>(-0.058)</td>
</tr>
<tr>
<td>MGOWN</td>
<td>-</td>
<td>0.014</td>
<td>-0.012</td>
<td>-0.006</td>
<td>-0.401</td>
<td>0.209</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.181)</td>
<td>(-0.193)</td>
<td>(-0.133)</td>
<td>(-0.872)</td>
<td>(0.617)</td>
</tr>
<tr>
<td>LNSIZE</td>
<td>?</td>
<td>0.002</td>
<td>0.003</td>
<td>0.016</td>
<td>0.172</td>
<td>0.041</td>
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<tr>
<td></td>
<td></td>
<td>(0.169)</td>
<td>(-0.296)</td>
<td>(2.197)*</td>
<td>(2.348)*</td>
<td>(0.768)</td>
</tr>
<tr>
<td>Adjusted R²</td>
<td></td>
<td>0.592</td>
<td>0.612</td>
<td>0.557</td>
<td>0.160</td>
<td>0.112</td>
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<td>34.189</td>
<td>37.148</td>
<td>29.813</td>
<td>5.374</td>
<td>3.874</td>
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<tr>
<td>p-value</td>
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<td>0.000</td>
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<td>0.000</td>
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</tr>
</tbody>
</table>

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**significant at the 0.01 level
(p-values are one-tailed when direction is as predicted, otherwise two-tailed)

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