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BOARD CHARACTERISTICS,
GROWTH OPPORTUNITIES
AND AUDIT RISKS:
SOME EVIDENCE FROM
AUSTRALIAN AUDIT PRICING

presented by

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Board Characteristics, Growth Opportunities and Audit Risks:
Some Evidence from Australian Audit Pricing

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Abstract

This study examines the relationship between a firm’s internal corporate governance characteristics and audit fees and whether growth opportunities moderate this relationship. The results of testing 246 Australian publicly listed companies show that the level of executive director share ownership is related to audit fees and that this relationship is non-monotonic. Further, the presence of CEO duality on the board, a proxy for board independence, is also associated with higher audit fees. Finally, the results show that these relationships are significant for firms with low growth opportunities. These results imply that executive director ownership, CEO duality and growth opportunities should be considered when determining the explanatory power of audit-pricing models.

Keywords: executive director share ownership, CEO duality, growth opportunities, audit pricing
1. **Introduction**

Audit fee pricing has been the subject of a large body of literature that has sought to identify significant variables that explain the magnitude of the audit fee charged (Simunic, 1980; Craswell, Francis and Taylor, 1995). The audit fee model that has evolved can be simply summarized as being that the audit fee charged is a function of the size and complexity of the firm, and the assessed perceived audit risk of the auditee to the audit firm (Gul, 2001). Simunic (1980), in a pioneering study, found that the pricing of audit fees was reflected in the quantity of audit effort given by the auditor in providing the service, and the envisaged cost to the auditor that could arise should an unqualified audit opinion be issued when material misstatements are present. Since this initial study, further research has identified many variables that are considered to impact upon audit fee pricing. Craswell et al. (1995), using a demand side perspective, developed an audit-pricing model in their investigation of premiums paid on audit fees of specialist big audit firms. Gul and Tsui (1998), on the other hand, adopted a supply side perspective and considered other variables of growth and free-cash flows (FCF) and found that the higher inherent risks associated with FCF is associated with higher audit effort and hence audit fees.

The primary objective of this study is to determine if a firm’s internal corporate governance practices are associated with the level of audit effort as demonstrated by higher audit fees. We adopt a supply-side side perspective to explain the relationship between corporate governance practices and audit fees. As in prior studies (e.g. Gul and Tsui, 1998) we adopt the audit risk model to posit theoretical relationships between
corporate governance practices and audit fees. In the audit risk model, detection risk is inversely related to inherent risk and control risk, given a level of audit risk selected by the auditor. The higher the control risk or inherent risk, the lower the detection risk and the higher the amount of audit effort and audit fees, *ceteris paribus*. While we attempt to relate certain corporate governance characteristic to inherent risk, in practice it is possible that these characteristics could affect both inherent and control risks in varying ways. The important point, however, is that the characteristics examined in this paper affect detection risk which is the end product of the assessments of both inherent risk and control risk; the lower the detection risk, the more the audit effort and the higher the audit fee.

The governance mechanism we investigate is the share ownership of executive directors of the board, and the independence of the board in terms of the leadership structure. We examine the interest alignment (diversion) between executive directors and shareholders associated with share ownership and whether that relationship is related to the level of audit fees. We also posit that the quality of board monitoring in terms of whether the CEO is also chairman is related to the independence of the board and executive directors’ identification with shareholders. Finally, based on contracting cost theory we also explore whether growth opportunities moderate the relationship between executive director ownership, CEO duality and audit fees. A considerable body of the literature suggests that firms with low growth opportunities are associated with agency problems between insiders and outside shareholders since reinvestment opportunities are poor and managers are more likely to divert profits and corporate assets for personal use or commit them to
unprofitable projects (Jensen, 1986; Easterbrook, 1984; La Porta et al, 2000). Further, managers of low growth firms (especially those with high free cash flows) are also more likely to be involved in non-value maximizing activities including an increase in compensation and manipulation of accounting numbers (Jensen, 1989; Gul and Tsui, 2001). Thus, we expect that the effects of different levels of management ownership and CEO dominance are more likely to matter for low growth firms.

The results of this study indicate that executive director share ownership is associated with audit fees. At low levels of executive director share ownership (< 2%), firms are more likely to be associated with higher inherent risk and therefore pay higher audit fees. Consistent with the agency argument, low levels of ownership fail to provide incentives that align the interests of executive directors with those of external shareholders. However, at moderate levels of executive director share ownership (between ≥ 2% and < 35%) the firm pays significantly lower audit fees, supporting the goal alignment hypothesis. That is, stronger managerial integrity is more likely to be evident when executive directors have a stake in the residual profits of the firm providing them with the incentive to exert maximum effort in monitoring management decisions, thus mitigating alignment problems. Subsequently, lower inherent risk implies less audit effort and therefore lower audit fees. In contrast, high executive director share ownership (> 35%) are more likely to be assessed as high inherent risk by auditors as executive directors seek to entrench their positions, and act against the interest of shareholders (Gul, 2001). Therefore, low or high share ownership results in higher auditor effort and audit fees increase.
The results from this study provide evidence of significantly higher audit fees when the CEO is also the chair of the board. The CEO-dominated board is more likely to be associated with lower levels of monitoring and/or weak internal control (Tsui, Jaggi and Gul, 2001). Consequently, audit effort and therefore audit fees increase. Finally when the sample is split between high growth and low growth firms (on the basis of the market-to-book ratios) the results for both executive director ownership and CEO duality are significant and stronger for low growth firms but not for high growth firms.

The major contribution of this study is that it identifies certain corporate governance variables that are significantly associated with audit fee pricing. The most important, and previously undocumented finding, is the evidence that auditors take into consideration the share ownership levels of executive directors when pricing the audit. In particular, the non-monotonic relationship between executive directors’ share ownership and audit fee is consistent with prior research (see Morck, Shliefer and Vishny, 1988). That is, as well as the previously documented considerations of size and complexity, auditors consider the level of executive director share ownership in their assessment of the perceived riskiness of a firm. Additionally, support is found that auditors consider such corporate governance variables as whether CEO duality exists when assessing the riskiness of a firm, as manifested in the price charged by the auditor for performing the audit service. Another important contribution is the insight the paper provides on how auditors assessments of inherent risks associated with executive directors’ share ownership and CEO duality is contingent on the presence or absence of growth opportunities. This study
makes a contribution to the existing body of audit fee pricing literature and suggests that future research in the area of audit fee pricing should also include corporate governance variables and growth opportunities.

A second, though equally important, contribution from this study is the support that it provides in the area of corporate governance, transparency, and disclosure levels. Previous literature has identified good corporate governance practices are beneficial to investors. Benefits to investors for good corporate governance practices, such as having higher levels of non-executive (independent) directors on the board, enhance management behavior in an organization (Rosenstein and Wyatt, 1990), and more voluntary corporate disclosure (Fama and Jensen, 1983; Ho and Wong, 2001). This study provides evidence that supports that good corporate governance practices can also be beneficial to the firm in the form of better board monitoring and lower audit costs.

The remainder of this study is organized as follows. The theoretical background and hypotheses development are discussed in section 2. The research sample and design are discussed in section 3, and the results of testing the hypotheses are discussed in section 4. Section 5 contains the summary and conclusion including identified limitations, and suggestions for further research.
2. Theoretical Background and Hypotheses Development

2.1 Theoretical Development

According to auditing standards, the amount of audit risk assessed by an audit firm is made up of detection risk, control risk, and inherent risk. Given a level of audit risk, detection risk is determined by both inherent and control risk\(^1\). The higher the inherent or control risk, the lower the detection risk and the greater the degree of substantive procedures undertaken by the auditor in performing the audit. There is therefore an inverse relationship between the level of detection risk and the volume of substantive procedures undertaken. That is, the detection risk that misstatements in an auditee’s financial statements would not be detected by the auditor is reduced when a high level of substantive procedures are performed by the auditor. Inherent risk and control risk are not controllable and so need to be assessed by the auditor in determining the amount of audit effort.

Control risk is assessed by an audit firm based on its assessment of the internal control structure of the auditee company. The Australian statement of auditing standards 402 (para. 30) refers to control risk as the evaluation as to how effective an entity’s internal control systems is in preventing or detecting material misstatements. Inherent risk relates to the type of business and environment in which the audited company operates. Examples of factors that may lead to an assessment of a higher inherent risk include such things as questions regarding the integrity of management, the existence of many related party transactions, or other factors such as the deterioration in liquidity, an increase in

\(^1\) Audit risk = detection risk \times control risk \times inherent risk. Therefore, detection risk = audit risk/inherent risk \times control risk (Note: given the formulation any increase in control or inherent risk will reduce detection risk for a given level of audit risk)
borrowing levels, or changes in competition and profitability. Any of these inherent risk type factors may motivate management to hide deteriorating positions through accounting policy changes or deception (Gul, 2001, pp. 193-194).

We posit that auditors, in their assessments of both inherent and control risks, take into consideration corporate governance practices of the auditee company. However, we suggest that the corporate governance factors examined in this paper, share ownership and board leadership structure, mainly affect the inherent risk of the audit because these factors are more likely to be associated with managerial integrity rather than the firm’s accounting and internal control systems. It is possible that control risk may also be present, however it is difficult to disentangle the control risk from inherent risk unless the internal control structure of the audited firm can be ascertained. In this paper, it is hypothesized that audit effort, and hence audit fees, will be less when the auditor assesses corporate governance practices that reduce the level of audit risk.

2.2 Corporate Governance Practices

Corporate governance has received considerable interest by both academics and practitioners. The Asian financial crisis in 1997 and the recent corporate collapses of Enron and WorldCom in the US and HIH and OneTel in Australia have highlighted the realization that greater corporate governance is necessary to protect investors. Since the Coase (1937) study of the nature of the firm, a large body of literature has been generated on determining the best corporate structure. Jensen and Meckling’s (1976) agency theory contributed a framework that enabled a clearer vision of the problems inherent in
corporations where separation of ownership exists between the owners and managers. In addition, a large body of literature has developed in recent years investigating various corporate governance practices (e.g. Core, Holthausen and Larker, 1999). As a consequence of corporate collapses and loss of market confidence, the Cadbury Committee Report (1992) in the UK, the Sarbanes Oxley Act (2002) in the US, and the Australian Stock Exchange (ASX) Corporate Governance Committee (2003) have made prescriptions or recommendations of what best corporate governance practices should be. Two corporate governance practices are examined in this paper to determine whether they are significant determinants of audit fee pricing: executive director share ownership and CEO duality.

2.2.1 Executive director share ownership

Agency theory suggests that share ownership by management can reduce the underlying agency problem: the more shares management owns, the stronger their motivation to work to raise the value of the firm's shares. Ownership by executive directors means they are less likely to engage in actions that are not in the interests of shareholders when they have a stake in the residual profits of the firm. Jensen and Meckling (1976) suggest that the interests of managers and shareowners are more aligned as management ownership increases. Warfield, Wild and Wild (1995) using US data show that the earnings-return relationship is weaker for firms with low management ownership and improves for firms with higher levels of ownership. They also found that the extent of discretionary accounting accruals is inversely related to management ownership. However, this convergence-of-interest hypothesis appears to only hold up to a certain level of
management ownership when after a certain point offsetting costs occur (Demsetz, 1983; Fama and Jensen, 1983).

The entrenchment argument suggests that when management ownership is high, managers have sufficient voting power to guarantee their position in the firm regardless of performance. This can lead to lower firm valuation and increased information asymmetry. It is considered that the competing hypotheses of interest-convergence and entrenchment can be tested using the audit fee model to investigate the impact upon the perceived risk by auditors in relation to management share ownership. We test whether auditors perceive higher or reduced risk at the different ownership levels using piecewise linear regression.

To investigate the impact that management share ownership has on audit fee pricing, this study adopts a piecewise linear regression using variables of executive director ownership of < 2%, executive director ownership between ≥2% and < 35%, and executive director ownership > 35%. These particular cut-offs are not the same as used by Morck, Schleifer, and Vishny (1988) when they investigated the relationship between management share ownership and the market valuation of the firm since an examination of the distribution of mean audit fees across different levels of ownership suggests that the ≥ 2% and 35% cut-offs are appropriate for this Australian sample (see Table 1). Using piecewise linear regression with market valuation proxied by Tobin’s Q, Morck et al (1988) found that Tobin’s Q first increased, then declined, and finally only slightly

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2 Morck, Schleifer, and Vishny (1988) use 0%-5%, 5%-25% and >25%. These cut-offs were also used by Rosenstein and Wyatt (1997) in their examination of stock-market reaction to inside director appointments.
rose when director ownership levels increased at a higher level. These authors interpreted these results as increases in Tobin’s Q with management share ownership “reflected the convergence of interests between managers and shareholders” whilst the decline reflected entrenchment.

The interest convergence hypothesis is supported at moderate levels of share ownership. Higher managerial integrity (lower inherent risk) is evident when executive directors have a stake in the residual profits of the firm providing them with the incentive to exert maximum effort in monitoring management decisions, thus mitigating alignment problems. At moderate levels of ownership executive directors are less likely to consume perquisites and act opportunistically at the expense of shareholders as they have insufficient voting power to curb the threat of discipline (discharge) by the market. The presence of executive directors on the board, who identify with external shareholders by means of share ownership, implies that the board is more likely to act as effective monitors. Subsequently, lower inherent risk implies less audit effort and therefore lower audit fees, *ceteris paribus*.

In contrast, low (< 2%) and high (> 35%) executive director share ownership suggest high inherent risk, *ceteris paribus*. That is, at low levels of ownership, management has insufficient ownership to identify with shareholders’ goals while at extensive stock ownership levels they may have enough voting power to curb the influence of the market (Hermalin and Weisbach, 1991). Therefore, executive directors with high share
ownership are in a stronger position to mask accounting manipulations especially when they are facing a deteriorating financial position (Gul, 2001).

According to formal agency theory, substantial managerial share ownership can have undesirable risk-bearing properties. That is, as managers have already invested their non-diversifiable human capital in the firm, increased share ownership transfers additional risk to managers. This increased agency cost must more than offset any increase in compensation required by managers for bearing a greater level of firm-specific risk from their ownership of firm shares. This approach suggests that this additional risk can lead to risk avoiding behavior on the part of managers, which is not in the interest of shareholders. Therefore, increasing share ownership transfers additional risk to executive directors’ wealth portfolio. Subsequently, executive directors with high levels of share ownership (> 35%) will act to safeguard their investment at the expense of greater shareholders returns. Auditors will perceive the increased inherent risk, which requires additional audit services, and consequently increase audit fees.

Share ownership structure is likely to impact on the intensity of the audit and affects audit pricing. Modest levels of ownership moderate inherent risk thus reducing the need for greater audit effort and hence audit fees. However, when executive directors own little equity or excessive equity in the firm, inherent risk increases, which increases audit effort in detecting misstatements and hence increases audit fees. In order to test this relationship we set up the following null hypothesis:
2.2.2 CEO Duality

The need to limit the decision discretion of management and the need for a separate board to oversee that management acts in the interests of owners (investors) is well understood from agency theory (Jensen and Meckling, 1976). Fama and Jensen (1983) posit that the board of directors is ineffective when the decisions of top management cannot be controlled. The board of directors may be deemed ineffective when duality exists, that is, one individual holds the two most powerful posts on the board of directors, CEO and chairman. The chairman of the board is responsible for monitoring and evaluating the performance of the executive directors, including the CEO. The CEO has responsibility for the day-to-day running of the company as well as setting, and implementing, corporate strategy (Weir and Laing, 2001). When CEO duality exists, the CEO needs to monitor his own decisions and activities (Vance, 1983). Review of important decisions may not be made, and actions in the best interest of the company may not be made (Messier, 2000). The CEO/chairman’s dominant board position means (s)he can dictate to both management and the board their desired direction. Hence, decision management is not separated from decision control (Fama and Jensen 1983).

It is now over a decade since the Cadbury Committee (1992) made recommendations for companies to separate the roles of the chairman of the board and the chief executive officer. More recently the ASX Corporate Governance Council’s (March 2003)
recommendation 2.3 suggests that the same person should not exercise the role of CEO and chairman. The chairman is responsible for: leadership of the board, efficient organization and conduct of the board’s function and briefing directors on board meeting issues. The council suggests that there should be a clear division between the responsibilities of the CEO and the chairperson. However, CEO duality still exists today in capital markets across the globe despite the Cadbury and ASX Corporate Governance Council recommendations. As these are recommendations only, this study seeks to determine whether auditor assessment of audit risk and the subsequent pricing of audits is higher when CEO duality is present.

Tsui, Jaggi and Gul (2001) investigated the relationship between CEO duality and audit pricing in a study of Hong Kong companies, and found that less audit effort and lower audit fees result when CEO duality is not present. Therefore, it is expected that the presence of CEO duality will be assessed by an auditor as posing a higher inherent risk and the audit will be priced higher. The auditor will identify that the occurrence of CEO duality presents the possibility that this individual may be a dominant personality who potentially dictates to both management and the board his / her desired direction. To test this relationship the following hypothesis in a null form is set up for testing:

\[ H2: \text{There is a positive association between CEO duality and audit fees, ceteris paribus.} \]

3 Principle 2: Structure the board to add value (page 21)
2.2.3 Investment opportunities and corporate controls

The organizational structure affects reported accounting numbers (Watts and Zimmerman 1990). As a consequence, a firm’s organizational structure is taken into account when auditors consider the level of audit risk. The value of investment opportunities depends on further discretionary expenditures by managers (Gaver & Gaver, 1993). These investment opportunities include discretionary expenditures such as capacity expansion projects, new product lines, maintenance and replacement of existing assets. As a consequence managers are likely to have a comparative advantage in the private information they possess on investment opportunities. The separation of ownership and control and the subsequent agency costs of information asymmetry from high investment opportunities, yield a level of risk that cannot be mitigated by contractual arrangements.

Based on the relation between risk and earnings variability and economic factors that determine the nature of the firm, contracting considerations, such as managerial ownership and board leadership, should be examined with regard to the firm’s investment opportunities. Since monitoring and contracting are costly, not all of managers’ opportunistic behavior or accounting discretion can be eliminated. If managers accounting choices cannot be entirely constrained by contractual provisions, then auditors’ assessment of the inherent risk of firms with high growth opportunities means that there will be a positive association between audit fees and growth opportunities. The intensity of inherent risk cannot be restrained by management share ownership or separation of the leadership roles so that we would expect to find no significant
association between the levels of management share ownership or duality and audit fees for high growth firms.

Prior research has suggested that firms with assets-in-place (non-growth firms) are likely to have agency costs as low growth firms are pre-committed to a certain course of activity as the interchangeability between assets is often low. Firms with assets-in-place (non-growth firms) are likely to have more agency problems since managers with poor reinvestment opportunities are likely to divert firm profits and assets for their own private benefits (Jensen, 1986; Easterbrook, 1984; La Porta et al., 2000). Gul and Tsui (2001) also point out that managers of these firms are more likely to act opportunistically and are involved in “value destroying activities”. Subsequently, investment opportunities of low growth firms are limited and excess cash, not paid out in dividends, is available to the firm as they have already invested in all positive-net-present-value projects. That is, the low growth firm is more likely to have high free cash flows (FCF) and managers can act opportunistically, by means of excessive perquisite consumption, hiding non-optimal expenditures, misappropriation of assets and salary enhancement (Jensen, 1986). Such activities by managers are likely to have audit implications in terms of auditor’s assessments of inherent risks (Gul and Tsui, 2001, p. 73). Thus, inherent in low growth firms are the agency problems whereby managers are likely to act against the interest of shareholders. The inherent risk of low growth firms is likely to lead to higher audit effort and higher audit fees.
Previous research has found that growth firms have higher compensation and greater use of stock options (Collins, 1995; Gaver & Gaver, 1993; Smith & Watts, 1992), incur higher monitoring costs (Anderson et al, 1993), and have incentives to adopt alternative accounting measures of performance (Bushman, 1996; Skinner, 1993) and reporting (Bradbury, 1992). Anderson et al (1993) considered whether three monitoring mechanisms: internal auditors, external auditors or total directors employed for corporate governance, were a function of a firm’s mix of assets-in-place and growth options. They posited that the optimal monitoring mechanism would reduce agency costs. They theorized that the role of monitoring was an endogenous function of a firm’s growth options. While controlling for size, they found that non-growth firms had lower total monitoring costs\(^4\) and reduced reliance on directors and external auditors as supervisors of managers’ behavior. However, Anderson et al (1993) did not test if this association was moderated by the level of management share ownership or board leadership. Gul and Tsui (2001) found that low growth firms with high free cash flows pay higher audit fees, but that this association was weakened by director equity ownership.

The leadership structure of low growth firms is particularly important because, when the CEO is also the chairman of the board in a firm with considerable excess cash, there is greater potential for unrestrained opportunistic behavior. The entrenched CEO has greater discrimination about how to use the undistributed cash and may pursue his/her own interest at the expense of shareholders. Auditors would therefore evaluate the high inherent risk associated with CEO duality and high inherent risks associated with low

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\(^4\) The sum of firm’s dollar outlays on 1) external audit fees 2) internal auditors’ salaries and 3) total directors’ compensation.
investment opportunities, and conclude a higher potential for litigation risk. This higher audit risk would lead to higher effort on the part of the auditor and hence higher audit fees.

To determine the strength of the goal alignment and entrenchment propositions we need to test the relationship between management share ownership and board leadership and audit fees in a situation where there are opportunities of investment, such as in growth/non-growth firms. Share ownership or duality by themselves does not measure the incentive of management to act opportunistically. In this study, we posit that share ownership and board leadership structure are associated with executives’ choice of non-value maximizing behavior in low growth firms and that these characteristics impact on the auditor’s judgment of the firm’s inherent risk.

We suggest that auditors evaluate the inherent risk of low growth firms in light of the level executive directors’ share ownership and board leadership structure and exert more (less) effort and subsequently charge higher (lower) fees. This study seeks to test whether share ownership or CEO duality has an impact on auditors’ assessment of the audit risk and whether this impact is affected by the growth opportunities of the firm. In order to examine these relationships the following hypotheses are set up for testing:

\textit{H3: The non-monotonic association between executive directors’ share ownership and audit fees will be moderated by the firm’s growth opportunities, ceteris paribus.}
\textit{H4: The positive association between CEO duality and audit fees will be moderated by the firm’s growth opportunities, ceteris paribus.}

3. Research Design

3.1 Sample

The data used in testing the hypotheses was collected from 437 of the top 500 Australian publicly listed companies in 1998\textsuperscript{5}. Data was hand collected from Connect 4, an Australian database of the top 500 companies in terms of market capitalization. The final sample size used for testing was 251 companies. This followed exclusion of finance companies (16), No-Liability (NL) mining companies (39), companies with missing data for CEO duality (28), director shareholdings (7), and other missing data required in the regression analysis (101). Banking, finance and investment companies are commonly excluded because of the different regulatory framework in which they operate (Francis and Stokes, 1986; Tsui, Jaggi and Gul, 2001). The No-Liability mining companies are listed as public companies and are generally small entities when compared to other listed companies on the Australian Stock Exchange. No-liability companies are so named, as the company does not have the right to require shareholders to make any contribution towards the debts of the company. The shareholders do not have any liability to meet calls on unpaid shares. These companies are considered, on average, riskier than other listed companies and so warrant exclusion from the sample, as their audit fee pricing is likely to be impacted by their no liability status.

\footnote{\textsuperscript{5} This was after exclusion of 63 trust companies.}
3.2 Measurement of the Dependent and Independent Variables

3.2.1 Dependent Variable

Following tests of normality, the dependent variable, Audit Fee, is measured by taking the natural log of audit fees, paid by the entity for performing audit services during the year. This is disclosed by the entity in the financial statements in the ‘Notes to and Forming Part of the Financial Statements’ section in the annual reports.

3.2.2 Independent Variables

3.2.2.1 Corporate Governance Variables

Executive directors’ share ownership is measured as executive directors’ ownership divided by total issued shares. This demonstrates the executive directors’ investment in the firm and their identification with external shareholders. Based on prior studies (see Morck, Shleifer and Vishny, 1988; McConnell and Servaes, 1990; Hermalin and Weisbach, 1991), we adopt a piece-wise regression with three levels of executive director ownership: < 2%, ≥ 2% to < 35%, and >35%. These cutoffs were based on an inspection of the distribution of audit fees shown in Table 1. We expect a negative association between executive director ownership between 2% and 35% and audit fees as, at this level of ownership, auditors exert less effort in the audit due to the perceived convergence of interest between executive directors and shareholders and subsequently lower inherent risk. We expect a positive association between executive director ownership at less than 2% and greater than 35% and audit fees as, at this level, auditors exert greater effort due to greater inherent risk either from a lack of goal alignment (<2% ownership) or entrenchment (>35% ownership).
CEO duality (CEO) is measured as a dummy variable, assigned 1 if the chief executive officer (or managing director) additionally occupies the position of the chairman of the board, or 0 if otherwise. We expect a positive association between CEO duality and audit fees, as auditors exert greater effort in assessing the risk of the firm where the CEO is also the chairman of the board.

The variable GROWTH is measured as market to book value of equity. GROWTH is included due to prior literature that has investigated the effect of corporate governance practices in relation to growth opportunities and their impact on audit fees (Tsui, Jaggi and Gul, 2001). Additionally, Hutchinson and Gul (2003) investigated how the negative relationship between a firm’s growth prospects and firm performance is weakened when higher levels of non-executive (independent) directors are represented on the board. Both of these aforementioned authors used factor analysis to identify a common factor, called an investment opportunity set (IOS), to proxy for growth prospects of a firm. Results from these studies suggest that a firm’s growth prospects are likely to be considered by an audit firm when assessing the inherent risk and control risk, and the subsequent audit risk of a client, and so affect the audit pricing of that firm. We expect a positive association between growth and audit fees as auditors assess these firms as having greater inherent risk and therefore exert greater effort in the audit and consequently charge higher fees.
3.2.2.2 Control Variables

Based on prior research on audit fees the following variables were included in the regression: AUDITOR, SIZE, DEBT, ROE, LOSS, YEAR-END (Simunic, 1980; Francis, 1984; Craswell et al., 1995; Gul and Tsui, 1998; Gul, 1999; Tsui, Jaggi and Gul, 2001). Prior research has found that Big 5 audit firms (now Big 4 since the collapse of Arthur Andersen) attract higher audit fees than non-Big 5. The control variable AUDITOR is a dummy variable, 1 if the sample firm is audited by a Big 5 auditor firm, 0 otherwise. SIZE measured by the log of total assets has been found in prior literature to have very high power in explaining audit fee pricing. DEBT, along with two additional liquidity ratios (current asset ratio and quick asset ratio) are included in the model as these variables are likely to impact on the auditors assessment of firm risk and hence impact on auditors’ risk of litigation. ROE, measured by EBIT divided by total equity is used to control for overall audit risk (Tsui, Jaggi and Gul, 2001). The LOSS variable is measured as a dummy variable of 1 if a loss was recorded during the year and 0 otherwise. Year-end (YE) is measured by a dummy variable, 1 if the year-end is June 30th, and 0 otherwise. Public companies in Australia predominantly have a Jun 30th year-end. This variable is included, as in previous studies, to capture any difference in audit fees charged when a company’s year-end is outside the common year-end period.

Additional control variables of INVENT, ALAG, SUB, FOR, and INDB are included to reduce the likelihood of problems arising in the model from omitted variables. The inventory (INVENT) variable is measured by the total inventory divided by total assets. INVENT is included because the extent of inventory in relation to total assets of a firm is
a factor that an audit firm would consider when pricing for services provided, that is, the higher the level of inventory the more difficult the audit and the higher the audit fee. Audit Lag (ALAG) being the number of days elapsed from the date of the financial year-end and when the audit opinion is given is included as it is considered that a longer period may be associated with the audit fee charged. The number of subsidiaries and the number of foreign subsidiaries are also included in the model as these firm characteristics are likely to impact on the complexity of the audit and hence the audit fee charged. INDB is measured as the number of non-executive directors on the board divided by the total directors on the board. Board independence is included as a control variable because, as a corporate governance control, a more independent board is likely to have some influence over the audit fee charged.

3.3 Regression Model

The OLS regression model is specified as follows:

\[ LAF = \beta_0 + \beta_1 CEO + \beta_2 EDSHAR1 + \beta_3 EDSHAR2 + \beta_4 EDSHAR3 + \beta_5 GROWTH + \beta_6 AUDITOR + \beta_7 ALAG + \beta_8 SIZE + \beta_9 SUB + \beta_{10} FOR + \beta_{11} CAT + \beta_{12} QUICK + \beta_{13} DEBT + \beta_{14} ROE + \beta_{15} LOSS + \beta_{16} INVENT + \beta_{17} YE + \beta_{18} INDB + \varepsilon \]

In the regression model, Audit Fee (LAF) is the dependent variable. The definitions of the experimental and control variables follow.
4. Results and Discussion

4.1.1 Descriptive statistics

Table 2 contains the descriptive statistics for both the dependent and independent variables. The Audit fees vary from $7,600 to $6,788,000, with a mean of $469,871 Australian dollars. CEO dominance only accounts for just over 8.1% of the total sample firms. Big 5 auditors audited 80.9% of the sample firms. Total assets vary from $7,891,000 to $54.484 billion, with a mean of $1,423,184. GROWTH shows a significant variation among firms. GROWTH, being measured by market to book value of equity varies from 0 to 11.47 times, with a mean of almost 2 times. LOSS, the number of firms recording a loss during the year was 10.6%. Of the sample firms 71.5% had a
June 30th year-end. INDB demonstrates that firms have a majority of non-executive directors on average, 71.3%.

### 4.1.2 Correlations

Table 3 reports on the bivariate statistical correlations between all the relevant variables. The results show that audit fees are significantly and negatively correlated with executive director shareholdings and LOSS. Results also show that audit fees are significantly and positively correlated with AUD, SIZE, SUB, FOR, and DEBT.

### 4.1.3 Regression results

**Main effects of ownership levels and CEO duality**

The regression results from testing hypotheses 1 and 2 are reported in Table 4. The adjusted $R^2$ of 78.1% gives confidence in the explanatory power of the model. Moreover, none of the Variance Inflation Factors (VIFs) were more than 3 thus suggesting that multicollinearity is not a problem.

The variable measuring executive directors’ share ownership (EDSHAR) is significant in the pricing of an audit for levels of ownership between $\geq 2\%$ and $< 35\%$. The coefficient is negative, as expected, and significant ($p<0.01$). At ownership levels below 2% there is a positive and significant association with audit fees ($p<0.10$) and at ownership levels above 35% there is a positive and significant association with audit fees ($p<0.01$). Therefore, the results support the interest-convergence hypothesis for ownership levels between 2% and 35%, that is, the interests of executive directors and external
shareholders are only aligned at moderate levels of share ownership. At low levels of ownership (<2%) a lack of goal alignment affects auditors assessment of audit risk and the auditor prices the audit higher. The entrenchment hypothesis is supported for ownership levels above 35%, that is, that the interests of executive directors and external shareholders are not aligned at high levels of share ownership. The coefficient for CEO duality is positive, as expected, and significant ($p<0.01$). This result supports the hypothesis of the positive association between CEO duality and audit fees. That is, CEO duality increases the level of audit effort and subsequently fees. Dominant individuals that occupy both positions of chairman of the board and chief executive officer simultaneously are assessed by audit firms as having higher inherent and control risk, and hence higher audit risk, this in turn leads to higher audit fees.

Of the control variables, SIZE, SUB, and FOR, are positively and significantly ($p<0.0001$) associated with audit fees, thus demonstrating the association of greater firm complexity on higher audit fees. The measures of liquidity, CATA, QUICK and DEBT are also significantly related to audit fees ($p<0.0001$). However, the result is puzzling. The mixed result may be due to the nature of the firm, that is, whether a high or low debt level is risky is predominantly firm specific. AUDITOR and ALAG are positively and marginally ($p<0.10$) significantly related to audit fees. Large audit firms are more likely to charge higher fees and the longer the period between the end of the financial year and the audit opinion the more likely a higher fee is charged due to the difficulty in detecting misstatements.
4.4.4  Moderating Role of Growth Opportunities

Following the methodology recommended by Stone-Romero and Anderson (1994) (see also Arnold 1982; Staw and Oldham, 1978; Stone and Hollenbeck, 1989; Wright et al., 1996) we test for the moderating role of growth opportunities by splitting the sample at the median (1.41) and running separate regressions for the high and low growth group. The regression results from testing hypotheses 3 and 4 are reported in Table 5. The models for low and high growth firms have an adjusted $R^2$ of 73.18% and 83.7% respectively. The results reported in Table 5 demonstrate that significant associations between share ownership and audit fees and CEO duality and audit fees are substantial for low growth firms but not for high growth firms. This result is consistent with our expectations and prior research that managers of low growth firms are more likely to be involved in non-value maximizing behavior including manipulation of accounting numbers. Thus, the effects of conflict of interest (low management ownership), incentive alignment effects (moderate levels of management ownership) and entrenchment effects (high levels of management ownership) are more pronounced for low growth firms.

First, consistent with Jensen’s (1986, 1989) argument, managers of low growth firms with low management share ownership are more likely to manipulate earnings, to shirk or to follow sub-optimal investment policies. Thus auditors of these firms are more likely to assess higher inherent risks for these firms. However, as management share ownership increases the incentive alignment effects causes managers to act more in the long term interest of the shareholders and there is less likelihood of manipulation of earnings and value destroying activities (Jensen and Meckling, 1976). Thus, auditors assess lower

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6 The coefficient for CEO duality is marginally significant for low growth firms at < 0.10.
levels of inherent risks relative to firms with low growth opportunities and low management ownership. Finally, managers of low growth firms with high levels of management ownership entrench themselves and divert resources for their own personal use (Schleifer and Vishny, 1988). Auditors are therefore more likely to assess higher levels of inherent risks for these firms. Similarly, the existence of CEO domination exacerbates the agency problems of low growth firms and this is reflected in higher audit fees.

The low growth firm results present strong evidence of higher perceived inherent risk at low levels of managerial ownership (<2%), alignment of interest at moderate levels of ownership (2% to 35%), and entrenchment at high levels of share ownership (>35%) that increases the perceived inherent risk and subsequently leads to a higher audit fee being charged. This finding suggests that it is perhaps economically irrational to promote share ownership as a goal alignment incentive for managers where there is high growth potential. Thus the results from testing hypotheses 3 and 4 suggest that the optimal ownership and leadership structure is largely firm specific.

5. Summary and Conclusion

This study investigated how corporate governance variables may impact on audit effort and therefore audit fees. The corporate governance practices studied were CEO duality and the share ownership of the executive directors of the board. The results of the study support the hypotheses that CEO duality is positively and significantly associated the amount of effort exerted by the auditor in assessing the financial reports. The results are
encouraging for shareholders as they can be assured that greater auditor effort is expected when corporate practice prescriptions are not followed resulting in more reliable financial statements and related disclosures. The negative impact of executive directors’ share ownership on audit fees for moderate levels of ownership suggest that there is less need for intensive audit processes where the interests of the executive directors of the board are aligned with shareholder’s interests.

The results from testing the constructs of ownership and CEO duality in an environment of investment opportunities suggest that the optimal ownership and leadership structure is largely firm specific. The results of this study indicate that the roles of executive director ownership and CEO duality are more pronounced for firms with low growth opportunities as they are more likely to be associated with higher risks and subsequently greater audit effort and higher audit fees. For high growth firms, having higher information asymmetry and being more risky to audit, executive director ownership and CEO independence are not as important in affecting auditors’ assessments of inherent risks.

There are two main limitations identified in this study. Firstly, the sample only covers one year of Australian data and an external validity problem exists that the results may not be transportable over different time periods and locations. Secondly, two corporate governance variables were considered. Many more variables could be considered. Future research should include the examination of the association that audit committees may have on audit fee pricing. This will include looking at the proportion of non-
executive (independent) directors on the audit committee, and the frequency of audit committee meetings.

The major contribution of this study is that it highlights auditors’ perception of the usefulness of certain corporate governance practices in affecting inherent risks. As a consequence, higher (lower) audit fees are associated with the auditor’s assessment of the audit risk related to the firm’s board leadership structure and executive share ownership and corporate governance practices are only effective for low growth firms. A reason for this is that managers of firms with low growth opportunities are more likely to be involved in non-value maximizing activities and corporate governance mechanisms play an important role in the audit pricing of these firms.
References


Australian Auditing Standards 402, paragraph 30.


### Table 1

Mean values of Audit Fees grouped by the Level of Equity Ownership of the Board of Directors (N=246)

<table>
<thead>
<tr>
<th>Board’s Stake</th>
<th>No. of Firms</th>
<th>Mean Audit Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>*0% to &lt; 2%</td>
<td>168</td>
<td>586,891</td>
</tr>
<tr>
<td>2% to &lt; 6%</td>
<td>17</td>
<td>240,349</td>
</tr>
<tr>
<td>6% to &lt;15%</td>
<td>10</td>
<td>218,500</td>
</tr>
<tr>
<td>15% to &lt; 25%</td>
<td>18</td>
<td>154,531</td>
</tr>
<tr>
<td>25% to &lt;35%</td>
<td>10</td>
<td>151,461</td>
</tr>
<tr>
<td>35% to &lt;50%</td>
<td>17</td>
<td>237,176</td>
</tr>
<tr>
<td>50% to 89%</td>
<td>6</td>
<td>398,583</td>
</tr>
</tbody>
</table>

* There were 31 observations with 0% ownership and mean audit fee of $545,103. The rest of the observations (N=137) for ownership < 2% had a mean audit fee of $596,347.
Table 2
Descriptive Statistics for all Variables (N = 246)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUDIT FEES</td>
<td>449.871</td>
<td>7.600</td>
<td>6788.000</td>
<td>917.052</td>
</tr>
<tr>
<td>CEO</td>
<td>0.081</td>
<td>0.000</td>
<td>1.000</td>
<td>0.274</td>
</tr>
<tr>
<td>EDSHAR</td>
<td>0.076</td>
<td>0.000</td>
<td>0.890</td>
<td>0.147</td>
</tr>
<tr>
<td>GROWTH</td>
<td>1.940</td>
<td>0.000</td>
<td>11.470</td>
<td>1.692</td>
</tr>
<tr>
<td>AUDITOR</td>
<td>0.809</td>
<td>0.000</td>
<td>1.000</td>
<td>0.394</td>
</tr>
<tr>
<td>TA</td>
<td>1423.184</td>
<td>7.891</td>
<td>54484.000</td>
<td>4597.503</td>
</tr>
<tr>
<td>ALAG</td>
<td>70.126</td>
<td>17.000</td>
<td>184.000</td>
<td>18.059</td>
</tr>
<tr>
<td>SIZE</td>
<td>12.746</td>
<td>8.973</td>
<td>17.813</td>
<td>1.583</td>
</tr>
<tr>
<td>SUB</td>
<td>2.854</td>
<td>0.000</td>
<td>6.659</td>
<td>1.158</td>
</tr>
<tr>
<td>FOR</td>
<td>0.262</td>
<td>0.000</td>
<td>1.000</td>
<td>0.269</td>
</tr>
<tr>
<td>CATA</td>
<td>0.387</td>
<td>0.000</td>
<td>0.992</td>
<td>0.237</td>
</tr>
<tr>
<td>QUICK</td>
<td>2.384</td>
<td>0.000</td>
<td>118.508</td>
<td>8.981</td>
</tr>
<tr>
<td>DEBT</td>
<td>0.238</td>
<td>0.000</td>
<td>0.861</td>
<td>0.169</td>
</tr>
<tr>
<td>ROE</td>
<td>0.160</td>
<td>-0.938</td>
<td>0.930</td>
<td>0.208</td>
</tr>
<tr>
<td>LOSS</td>
<td>0.106</td>
<td>0.000</td>
<td>1.000</td>
<td>0.308</td>
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<tr>
<td>INVENT</td>
<td>0.128</td>
<td>0.000</td>
<td>0.833</td>
<td>0.161</td>
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<td>YE</td>
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<td>1.000</td>
<td>0.452</td>
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<tr>
<td>INDB</td>
<td>0.714</td>
<td>0.200</td>
<td>0.923</td>
<td>0.157</td>
</tr>
</tbody>
</table>

AUDIT FEES = Audit fees in $,000 Australian dollars.
CEO = Dummy variable, 1 if chief executive officer is also chairman of the board, 0 otherwise.
EDSHAR = Total of executive directors’ shares divided by total issued shares.
GROWTH = Market to book value of equity.
AUDITOR = Dummy variable, 1 if the firm audited by a Big 5 auditor firm, otherwise.
TA = Total assets in $,000 Australian dollars.
ALAG = Number of days from financial year-end date and date of audit opinion.
SIZE = Log of total assets.
SUB = Log of number of subsidiary companies.
FOR = Number of foreign subsidiaries/subsidiary companies.
CATA = Current assets/total assets.
QUICK = Current assets – inventories / current liabilities.
DEBT = Non-current liabilities divided by total assets.
ROE = EBIT divided by equity.
LOSS = Dummy variable, 1 = loss during year, 0 otherwise.
INVENT = Inventory divided by total assets.
YE = Dummy variable, 1 = if June 30th year end, 0 otherwise.
INDB = Proportion of non-executive (independent) directors on the board.
### Table 3

Pearson Correlation Coefficients (N = 246)

<table>
<thead>
<tr>
<th></th>
<th>LAF</th>
<th>CEO</th>
<th>EDSHAR</th>
<th>GROWTH</th>
<th>AUDITOR</th>
<th>ALAG</th>
<th>SIZE</th>
<th>SUB</th>
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</thead>
<tbody>
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<td>LAF</td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>CEO</td>
<td>-0.006</td>
<td>1.000</td>
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</tr>
<tr>
<td>EDSHAR</td>
<td>-0.168**</td>
<td>0.105</td>
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<td></td>
</tr>
<tr>
<td>GROWTH</td>
<td>-0.030</td>
<td>0.087</td>
<td>-0.059</td>
<td>1.000</td>
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<td></td>
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<tr>
<td>AUDITOR</td>
<td>0.242**</td>
<td>-0.082</td>
<td>-0.071</td>
<td>-0.157*</td>
<td>1.000</td>
<td></td>
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</tr>
<tr>
<td>ALAG</td>
<td>-0.089</td>
<td>-0.019</td>
<td>0.214**</td>
<td>-0.170**</td>
<td>0.044</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SIZE</td>
<td>0.778**</td>
<td>-0.059</td>
<td>-0.233**</td>
<td>-0.146*</td>
<td>0.254**</td>
<td>-0.160*</td>
<td>1.000</td>
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<tr>
<td>SUB</td>
<td>0.736**</td>
<td>-0.025</td>
<td>-0.017</td>
<td>-0.052</td>
<td>0.174**</td>
<td>-0.036</td>
<td>0.621**</td>
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<tr>
<td>FOR</td>
<td>0.371**</td>
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<td>-0.042</td>
<td>0.078</td>
<td>-0.015</td>
<td>-0.085</td>
<td>0.167**</td>
<td>0.265**</td>
</tr>
<tr>
<td>CATA</td>
<td>-0.046</td>
<td>-0.063</td>
<td>0.121</td>
<td>0.145*</td>
<td>-0.033</td>
<td>0.015</td>
<td>-0.319**</td>
<td>0.063</td>
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<tr>
<td>QUICK</td>
<td>-0.122</td>
<td>-0.011</td>
<td>-0.051</td>
<td>0.099</td>
<td>0.022</td>
<td>-0.011</td>
<td>-0.077</td>
<td>-0.046</td>
</tr>
<tr>
<td>DEBT</td>
<td>0.227**</td>
<td>-0.017</td>
<td>-0.064</td>
<td>-0.111</td>
<td>0.121</td>
<td>-0.075</td>
<td>0.459**</td>
<td>0.219**</td>
</tr>
<tr>
<td>ROE</td>
<td>0.140*</td>
<td>-0.056</td>
<td>0.029</td>
<td>0.281**</td>
<td>0.089</td>
<td>-0.122</td>
<td>0.124</td>
<td>0.094</td>
</tr>
<tr>
<td>LOSS</td>
<td>-0.237**</td>
<td>0.140*</td>
<td>0.027</td>
<td>0.113</td>
<td>-0.102</td>
<td>0.081</td>
<td>-0.269**</td>
<td>-0.177**</td>
</tr>
<tr>
<td>INV</td>
<td>-0.011</td>
<td>-0.053</td>
<td>0.056</td>
<td>-0.117</td>
<td>0.047</td>
<td>0.044</td>
<td>-0.111</td>
<td>-0.023</td>
</tr>
<tr>
<td>YE</td>
<td>-0.159*</td>
<td>0.089</td>
<td>0.099</td>
<td>0.156*</td>
<td>-0.077</td>
<td>0.021</td>
<td>-0.172**</td>
<td>-0.062</td>
</tr>
<tr>
<td>INDB</td>
<td>0.192*</td>
<td>-0.357**</td>
<td>-0.404**</td>
<td>-0.053</td>
<td>0.187**</td>
<td>-0.122</td>
<td>0.289**</td>
<td>0.076</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>FOR</th>
<th>CATA</th>
<th>DEBT</th>
<th>ROE</th>
<th>LOSS</th>
<th>INV</th>
<th>YE</th>
<th>INDB</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOR</td>
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<td></td>
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<tr>
<td>CATA</td>
<td>0.150*</td>
<td>1.000</td>
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<td></td>
</tr>
<tr>
<td>QUICK</td>
<td>0.090</td>
<td>0.229**</td>
<td>1.000</td>
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<tr>
<td>DEBT</td>
<td>-0.004</td>
<td>-0.413**</td>
<td>1.000</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROE</td>
<td>0.050</td>
<td>0.044</td>
<td>0.106</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LOSS</td>
<td>0.028</td>
<td>0.084</td>
<td>-0.180**</td>
<td>-0.637**</td>
<td>1.000</td>
<td></td>
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</tr>
<tr>
<td>INV</td>
<td>-0.027</td>
<td>0.473**</td>
<td>-0.236**</td>
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<td>-0.184**</td>
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<td>YE</td>
<td>-0.048</td>
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<td>-0.035</td>
<td>-0.068</td>
<td>0.100</td>
<td>-0.108</td>
<td>1.000</td>
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</tr>
<tr>
<td>INDB</td>
<td>-0.099</td>
<td>-0.201*</td>
<td>0.120</td>
<td>0.014</td>
<td>-0.165**</td>
<td>-0.082</td>
<td>-0.181**</td>
<td>1.000</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level (two-tailed)
* Correlation is significant at the 0.05 level (two-tailed)
## Table 4

Multiple Regression Results of the Relationship between Audit Fees, Corporate Governance and Control Variables (N=246)

<table>
<thead>
<tr>
<th>Explanatory Variable</th>
<th>Coefficient</th>
<th>White Corrected t-values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>4.210***</td>
<td>6.90</td>
</tr>
<tr>
<td>CEO</td>
<td>0.355***</td>
<td>2.46</td>
</tr>
<tr>
<td>EDSHAR1</td>
<td>7.753*</td>
<td>1.42</td>
</tr>
<tr>
<td>EDSHAR2</td>
<td>-1.258***</td>
<td>-2.36</td>
</tr>
<tr>
<td>EDSHAR3</td>
<td>1.362***</td>
<td>2.53</td>
</tr>
<tr>
<td>GROWTH</td>
<td>0.044*</td>
<td>1.52</td>
</tr>
<tr>
<td>AUDITOR</td>
<td>0.152*</td>
<td>1.59</td>
</tr>
<tr>
<td>ALAG</td>
<td>0.003*</td>
<td>1.40</td>
</tr>
<tr>
<td>SIZE</td>
<td>0.467***</td>
<td>8.23</td>
</tr>
<tr>
<td>SUB</td>
<td>0.356***</td>
<td>6.47</td>
</tr>
<tr>
<td>FOR</td>
<td>0.785***</td>
<td>5.33</td>
</tr>
<tr>
<td>CATA</td>
<td>0.918***</td>
<td>4.38</td>
</tr>
<tr>
<td>QUICK</td>
<td>-0.019***</td>
<td>-7.45</td>
</tr>
<tr>
<td>DEBT</td>
<td>-0.572**</td>
<td>-2.25</td>
</tr>
<tr>
<td>ROE</td>
<td>-0.114</td>
<td>-0.46</td>
</tr>
<tr>
<td>LOSS</td>
<td>-0.122</td>
<td>-0.68</td>
</tr>
<tr>
<td>INVENT</td>
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<td>-1.35</td>
</tr>
<tr>
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<td>-0.115*</td>
<td>-1.46</td>
</tr>
<tr>
<td>INDB</td>
<td>0.435</td>
<td>1.18</td>
</tr>
</tbody>
</table>

P-Value of F-test     <0.0001
Adjusted $R^2$        78.10%

*** Statistically significant at the <1% level, one-tailed test.
** Statistically significant at the <5% level, one-tailed test.
* Statistically significant at the <10 % level, one-tailed test.

LAF = Log of audit fees.
CEO = Dummy variable, 1 = if chief executive officer is also chairman of the board, 0 otherwise.
EDSHAR1 = Total of executive directors’ shares < 2% of total issued shares.
EDSHAR2 = Total of executive directors’ shares ≥ 2% to < 35% of total issued shares.
EDSHAR3 = Total of executive directors’ shares > 35% of total issued shares.
GROWTH = Market to book value of equity.
AUDITOR = Dummy variable, 1 if the firm audited by a Big 5 auditor firm, 0 otherwise.
ALAG = Number of days from financial year-end date and date of audit opinion.
SIZE = Log of total assets.
SUB = Log of number of subsidiary companies.
FOR = Number of foreign subsidiaries / subsidiary companies.
CATA = Log of current assets/total assets.
QUICK = Current assets – inventories / current liabilities.
DEBT = Non-current liabilities divided by total assets.
ROE = EBIT divided by equity.
LOSS = Dummy variable, 1 = loss during year, 0 otherwise.
INVENT = Inventory divided by total assets.
YE = Dummy variable, 1 = if June 30th year end, 0 otherwise.
INDB = Proportion of non-executive (independent) directors on the board.
### Table 5

Multiple Regression Results of Low Growth and High Growth Firms (N=246)

<table>
<thead>
<tr>
<th></th>
<th>Low Growth (N = 123)</th>
<th></th>
<th>High Growth (N = 123)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coefficient</td>
<td>White Corrected</td>
<td>t-values</td>
<td>Coefficient</td>
</tr>
<tr>
<td>Constant</td>
<td>3.225***</td>
<td>3.13</td>
<td>5.114***</td>
<td>8.50</td>
</tr>
<tr>
<td>CEO</td>
<td>0.396**</td>
<td>1.86</td>
<td>0.260</td>
<td>1.24</td>
</tr>
<tr>
<td>EDSHAR1</td>
<td>21.183***</td>
<td>2.62</td>
<td>0.340</td>
<td>0.04</td>
</tr>
<tr>
<td>EDSHAR2</td>
<td>-1.318**</td>
<td>-2.11</td>
<td>-1.049</td>
<td>-1.23</td>
</tr>
<tr>
<td>EDSHAR3</td>
<td>1.258**</td>
<td>2.21</td>
<td>2.469</td>
<td>0.75</td>
</tr>
<tr>
<td>AUDITOR</td>
<td>0.271**</td>
<td>2.13</td>
<td>-0.050</td>
<td>-0.47</td>
</tr>
<tr>
<td>ALAG</td>
<td>0.002</td>
<td>0.52</td>
<td>0.006*</td>
<td>1.59</td>
</tr>
<tr>
<td>SIZE</td>
<td>0.499***</td>
<td>4.90</td>
<td>0.455***</td>
<td>8.90</td>
</tr>
<tr>
<td>SUB</td>
<td>0.332***</td>
<td>3.57</td>
<td>0.333***</td>
<td>6.10</td>
</tr>
<tr>
<td>FOR</td>
<td>0.652***</td>
<td>2.76</td>
<td>0.897***</td>
<td>4.68</td>
</tr>
<tr>
<td>CATA</td>
<td>1.591***</td>
<td>5.63</td>
<td>0.159</td>
<td>0.580</td>
</tr>
<tr>
<td>QUICK</td>
<td>-0.023***</td>
<td>-5.02</td>
<td>-0.008**</td>
<td>-1.73</td>
</tr>
<tr>
<td>DEBT</td>
<td>-0.127</td>
<td>-0.33</td>
<td>-1.032***</td>
<td>-3.15</td>
</tr>
<tr>
<td>ROE</td>
<td>-0.076</td>
<td>-0.19</td>
<td>-0.112</td>
<td>-0.45</td>
</tr>
<tr>
<td>LOSS</td>
<td>-0.045</td>
<td>-0.21</td>
<td>-0.221</td>
<td>-0.86</td>
</tr>
<tr>
<td>INVENT</td>
<td>-0.855***</td>
<td>2.36</td>
<td>-0.188</td>
<td>-0.65</td>
</tr>
<tr>
<td>YE</td>
<td>-1.157*</td>
<td>-1.39</td>
<td>-0.085</td>
<td>-0.90</td>
</tr>
<tr>
<td>INDB</td>
<td>0.890*</td>
<td>1.30</td>
<td>0.312</td>
<td>0.81</td>
</tr>
<tr>
<td>P-Value of F-test</td>
<td>&lt;.0001</td>
<td></td>
<td></td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>Adjusted $R^2$</td>
<td>73.18%</td>
<td></td>
<td>83.70%</td>
<td></td>
</tr>
</tbody>
</table>

*** Statistically significant at the 1% level, one-tailed test.
** Statistically significant at the 5% level, one-tailed test.
* Statistically significant at the 10% level, one-tailed test.

CEO = Dummy variable, 1 = if chief executive officer is also chairman of the board, 0 otherwise.
EDSHAR1 = Total of executive directors’ shares < 2% of total issued shares.
EDSHAR2 = Total of executive directors’ shares ≥ 2% to < 35% of total issued shares.
EDSHAR3 = Total of executive directors’ shares > 35% of total issued shares.
AUDITOR = Dummy variable, 1 if the firm audited by a Big 5 auditor firm, 0 otherwise.
ALAG = Number of days from financial year-end date and date of audit opinion.
SIZE = Log of total assets.
SUB = Log of number of subsidiary companies.
FOR = Number of foreign subsidiaries / subsidiary companies.
CATA = Log of current assets/total assets.
QUICK = Current assets – inventories / current liabilities.
DEBT = Non-current liabilities divided by total assets.
ROE = EBIT divided by equity.
LOSS = Dummy variable, 1 = loss during year, 0 otherwise.
INVENT = Inventory divided by total assets.
YE = Dummy variable, 1 = if June 30th year end, 0 otherwise.
INDB = Proportion of non-executive (independent) directors on the board.