CEO DOMINANCE, FAMILY CONTROL AND MODIFIED AUDIT OPINIONS IN HONG KONG

Pek Yee Low*, Abdul Majid**

Abstract

This study using Hong Kong data examines the linkages between CEO dominance (CEO and Chairman is the same individual), family ownership and control, and the likelihood that firms receive modified audit opinions. Logistic regression results using a matched pair design of 89 firm-years with modified audit opinions for 1997 to 1999 and 89 firm-years with unqualified audit opinions (control sample), show that family controlled firms are less likely to receive modified audit opinions than non-family controlled firms, and the positive association between CEO dominance and modified audit opinions is evident only for non-family controlled firms. This suggests that the abuse of power arising from CEO dominance may be mitigated by the presence of family ownership and control.

Keywords: CEO dominance, family control, modified audit opinions

** Corresponding author: Department of Accountancy, City University of Hong Kong, 83 Tat Chee Avenue, Kowloon, Hong Kong. Telephone: (852) 2788-7946; Fax: (852) 2788-7944; Email: aclow@cityu.edu.hk.
** School of Accounting and Finance, The Hong Kong Polytechnic University

Acknowledgements: This research project was supported by an earmarked grant from the Research Grants Council of Hong Kong and financial assistance from the Accounting and Corporate Governance Center, City University of Hong Kong. The authors thank Ferdinand A. Gul and Sidney Leung for their helpful comments and suggestions.

1. Introduction

A major area of recent research interest relates to the role of corporate governance in reducing agency problems in corporations. In particular, corporate governance mechanisms are expected to align the interest of managers and shareholders and enable managers to exercise higher levels of monitoring. A key aspect of this monitoring function involves overseeing the entity’s financial reporting process. In Asia, the issue has gained much prominence particularly after the Asian financial crisis of 1997-1998. For example, a spokeswoman for the Hong Kong Stock Exchange (Hong Kong Accountant, 1999: 17) pointed out:

“Most companies in Hong Kong are managed by the majority shareholders and there is no third party to provide checks and balances and to monitor a company’s activities.”

An important aspect of corporate governance that has been singled out in the Hong Kong corporate landscape is CEO dominance (Tsui and Gul, 2000). Firms with CEO dominance (CEO and Chairman being the same person) are expected to be associated with higher agency costs and lower levels of corporate transparency (Gul and Leung, 2004). Dechow et al. (1996) find that firms that are associated with alleged violations of Generally Accepted Accounting Principles are more likely to have a CEO who is also chairman of the board. These results suggest that CEO dominance is likely to be associated with higher levels of audit qualifications since companies that receive audit qualifications are expected to have been deficient in financial reporting matters including possible earnings management (Bartov et al., 2000). In this paper, we test the hypothesis that firms with CEO dominance are more likely to be associated with higher likelihood of receiving modified audit opinions.

However, recent studies on corporate governance draw attention to the important role of family ownership and control in enhancing the values of Hong Kong firms (La Porta et al., 1999; HKSA, 1997). Family ownership structure seems to have worked well in Hong Kong and one explanation for this is that family ownership and control provides manager/owners with incentives to increase firm values (Khan, 1999). Morck et al. (2005) in their review of how corporate control affect economic growth suggest that family ownership and control need not be value-decreasing for the firm and may add value for public shareholders. In this paper, we also consider whether family ownership and control of companies affects the likelihood of firms receiving modified audit opinions and moderates the association...
between CEO dominance and modified audit opinions.

When an auditor issues a modified audit opinion, it is a signal that the auditor has some reservations about the financial statements. Most times, such modifications are not costless for the client. For example, clients who receive audit qualifications could have difficulties raising loans and some studies suggest that the market reacts adversely to audit qualifications (see Choi and Jeter, 1992; Louder et al., 1992; Chen et al., 2000). An insight and understanding of corporate governance mechanisms that are associated with lower likelihood of modified audit opinions is therefore also useful for both practitioners and client management.

In order to study the association between CEO dominance, family ownership and control, and modified audit opinions, we identified 89 modified audit opinions in Hong Kong for 1997 – 1999. We then match paired the 89 firm-years with those firms with unqualified audit opinions by industry and fiscal year. Our multivariate logistic results show that the positive association between CEO dominance and modified audit opinions is not significant across the sample, but becomes significant when we control for family ownership and control. The results also show that family ownership and control is negatively associated with modified audit opinions. In other words, family controlled firms are less likely to receive modified audit opinions than non-family controlled firms and family ownership and control seems to mitigate the possible agency problems associated with CEO dominance. These results, taken as a whole, suggest that aspects of board structure are associated with modified audit opinions.

Our research in Hong Kong is important for three reasons. First, comparative corporate governance has recently received more scholarly attention in the US and other jurisdictions as a result of international competition (Gilson and Roe, 1993). The globalisation of trade has required American firms to compete with organisations with different corporate governance systems thus obliging business scholarship to focus on comparative systems. Second, although some research along these lines has been carried out in the US, there is no evidence in Hong Kong on the links between corporate governance and modified audit opinions. As La Porta et al. (1998) point out, most studies on corporate governance focus on one or a few wealthy economies such as the US, Germany and Japan. Moreover, in the US, the market is well regulated and transparent, and share ownership is dispersed. Thus, to have a better understanding of corporate governance, they recommend studies in other jurisdictions such as in East Asia (including Hong Kong) where predominant ownership structure and control is the family, which often supplies the top manager (Faccio et al., 2000). Third, in the US, hostile mergers and acquisitions (M&A) exist as a disciplinary device to limit CEO power (Morck et al., 1988). In Hong Kong, M&A activities are rare and this market disciplinary device to check CEO power is unavailable. Thus, some evidence of the role of CEO dominance in Hong Kong will help us better understand how different institutional structures affect corporate governance systems.

The remainder of the paper is organized as follows. Section 2 describes the hypotheses. Section 3 presents the research methodology including sample selection. Results are discussed in Section 4 and conclusion is in Section 5.

2. Hypotheses Development

One of the most enduring institutions for minimizing agency costs has been the independent board of directors (see Bacon and Brown, 1975). However, substantial doubts remain regarding the extent to which boards can be independent. One of the reasons for this is that independent directors are typically chosen by managers and perceive themselves as ‘serving at the pleasure of the CEO-chairman’ (Lorsch and MacIver, 1989: 17). Thus, the presence of CEO-chairman or CEO dominance has been linked to a lack of board independence. Obviously, the lack of board independence is likely to have ramifications across various activities in the organisation, including financial transparency and corporate reporting. In this paper, we focus on an aspect of board independence, CEO dominance and modified audit opinions in Hong Kong. In addition, since the ownership structure of corporations in Hong Kong is characterized by family ownership and control, we also consider whether family ownership and control of firms are associated with modified audit opinions and its effect on the association between CEO dominance and modified audit opinions. The next section develops these arguments in more detail.

CEO Dominance and Modified Audit Opinions

The linkage between CEO dominance (sometimes referred to as CEO duality) and modified audit opinions may be explained in terms of agency theory which suggests that concentrated decision-making power as a result of CEO dominance may constrain board independence and impair the board’s oversight and governance roles (Fama and Jensen, 1983; Carver, 1990; Millstein, 1992; Whittington, 1993; 9

9 For instance, Goyal and Park (2002) find that the sensitivity of CEO turnover to firm performance is significantly lower for firms with CEO dominance. Rechner and Dalton (1991) find that firms with CEO dominance perform worse than firms that do not have CEO dominance. However, Brickley et al. (1997) find that firms with CEO dominance perform no worse than firms without CEO dominance.
Brickley et al., 1994; Worrell et al., 1997). An individual who is both CEO and Chairman of the Board might have a strong individual power base, which could erode the Board’s ability to exercise effective control. Fama and Jensen (1983) suggest that CEO dominance signals the absence of separation of decision control and decision management (Baliga et al., 1996). More specifically, CEO dominance may reduce the board’s ability to execute its oversight and governance roles in a wide range of management control issues including accounting matters. The issue was important enough for the Cadbury Committee (1992) to recommend that big companies separate the roles of CEO and Chairman. Similarly, the Hong Kong Monetary Authority also recommends that the roles of CEO and Chairman of an institution be separated (Tsui and Gul, 2000).

Forker (1992) argues more specifically that separation of the roles of Chairman and CEO enhances monitoring quality and improves financial disclosures. Dechow et al. (1996) in an analysis of governance structures and enforcement actions by the SEC for alleged violations of Generally Accepted Accounting Principles, find that earnings manipulators are more likely to have a CEO who is also Chairman of the board. In other words, firms with CEO dominated boards are willing to engage in earnings manipulation practices despite the risk of SEC sanctions. Gul and Leung (2004) find that firms in Hong Kong with CEO dominance are associated with lower levels of voluntary corporate disclosures. Thus, firms with CEO dominance are more likely to be associated with modified audit opinions since the Board is less likely to be effective in monitoring management, discouraging earnings management and ensuring higher levels of transparency. This leads to the following hypothesis:

**H1: There is a positive association between CEO dominance and modified audit opinions.**

**Family Control, CEO Dominance and Modified Audit Opinions**

However, the literature also suggests that there are a variety of incentive mechanisms that could mitigate the abuse of managerial discretion as a result of CEO dominance. For example, Jensen and Meckling (1976) argue that managerial incentives and monitoring could ensure that managers worked toward shareholders’ interest. In this paper we consider the incentive role of family ownership and control since this is an important facet of corporate ownership in Hong Kong (Claessens et al., 2000).

A unique characteristic of Hong Kong listed companies is the concentration of ownership. La Porta et al. (1998) find that ownership for the ten largest non-financial domestic firms in Hong Kong is 54 percent, which compares with 20 percent in the US and 19 percent in the UK. In general, most firms in Hong Kong are controlled by either an individual or family group (Cheng, 1995). Mok et al. (1992) find that 15 families control a total of 51 companies comprising 55.88 percent of the market value for locally listed firms as of 31 December 1989. The Hong Kong Economic Journal (3 January 1995), a local Chinese business newspaper, reports that the ten wealthiest families in Hong Kong own 46.8 percent of the total market capitalisation of the firms listed on the Stock Exchange of Hong Kong (Xiang, 1996). A recent survey by the Hong Kong Society of Accountants (HKSA, 1997) reveals that a significant number of Hong Kong listed companies are controlled by either an individual or a family, and that these controlling shareholders tend to appoint family members to the corporate board. La Porta et al. (1999) in their study of corporate ownership in 27 countries also find that in 86 percent of the time, families that control firms also participate in management in terms of appointments such as the CEO, the Chairman, the Honorary Chairman, or the Vice-Chairman of the firm. Mok et al. (1992: 292) state that: ‘… owners’ of publicly-listed corporations in Hong Kong, especially among Chinese family groups, do not accept being mere figure-heads, but actively exercise control by holding Board chairmanships or other top executive positions in the corporations.’

The presence of concentrated ownership can be beneficial to the firm (Shleifer and Vishny, 1997). Concentrated ownership improves the alignment of controlling shareholders with the minority shareholders, and enables the controlling shareholders to better monitor management more efficiently thus mitigating the agency costs of monitoring management (Shleifer and Vishny, 1997). Leung and Horwitz (2006) find concentrated ownership in Hong Kong firms to be value-increasing and this is consistent with the convergence-of interest hypothesis. Morck et al. (2005) also suggest that family ownership and control may actually add value to a firm, rather than destroy firm value. It is more costly for controlling shareholders if the firm’s cash flows are diverted for their private gains (Gomes, 2000). Based on the above discussion, family controlled firms are less likely to be associated with earnings management and tend to avoid situations that will lower corporate value. Since audit qualifications are costly, family controlled firms are more likely to work with auditors to avoid receiving modified audit opinions. Family controlled firms have the incentives

---

10 However, concentrated ownership also has its costs as such ownership may increase the ability of controlling shareholders to expropriate minority shareholders and extract private gains (Shleifer and Vishny, 1997; La Porta et al., 1999). Claessens et al. (1999) study covers nine East Asian countries (Hong Kong, Indonesia, Japan, Korea (South), Malaysia, the Philippines, Singapore, Taiwan and Thailand) and the authors find that the expropriation of minority shareholders is strongest for Indonesia, Philippines, and Thailand. Leung and Horwitz (2006) in their study of Hong Kong listed firms find evidence inconsistent with this expropriation of minority shareholders hypothesis.
and capability to mitigate the abuse of power arising from CEO dominance. This is consistent with Lynn and Tsui (2000) who find some support for the theory that the negative association between CEO dominance and firm performance is significant for non-family owned companies but not significant for family owned companies. We develop the following two hypotheses to test our expectations:

**H2:** There is a negative association between family ownership and control and modified audit opinions.

**H3:** The positive association between CEO dominance and modified audit opinions is weaker in family controlled firms than in non-family controlled firms.

### 3. Research Methodology

HKSA Auditing Standards (SAS 600) provides the guidelines for the different types of audit opinion. Basically, an audit opinion may be ‘unqualified’ or it may be ‘qualified’ resulting in a modified opinion. An unqualified opinion is one that states the financial statements to which it relates give a true and fair view of the client’s financial affairs. An unqualified opinion may incorporate an explanatory paragraph(s) to highlight matter(s) that are relevant to the financial statements. An unqualified opinion may take the form of an ‘except for’ opinion. Such an opinion begins by stating that the financial statements present a true and fair view except for the circumstances that it will describe. If, on the other hand, the circumstances are extreme i.e., are of a magnitude or are so pervasive or fundamental as to adversely affect the usefulness of the financial statements to the user, then the opinion may be ‘adverse’ or even a ‘disclaimer’.

In this paper, we only consider modified audit opinions comprising an ‘except for’ qualified opinion, disclaimer of opinions, and adverse opinions. To obtain information on the modified audit opinions, we resort to the Stock Exchange of Hong Kong (SEHK) website on Auditors’ Reports with ‘Qualified Opinion’ and/or ‘Explanatory Paragraph’. We obtain a potential sample of 189 firm-year observations for fiscal year-ends 31 December 1997 to 31 December 1999 that did not receive unqualified audit opinions. We check the audit opinions of these 189 firm-year observations and delete 81 firm-year observations having unqualified audit opinions with explanatory paragraphs. This leaves us an initial sample of 108 firm-year observations receiving modified audit opinions (8 for 1997, 48 for 1998, and 52 for 1999). After excluding four firm-years not covered in the FT Extel Company Analysis database, three firm-years from the ‘finance’ industry, 10 firm-years with missing data, and two firm-years with extreme values for the financial variables, we are left with a sample of 89 firm-years comprising 42 qualified audit opinions and 47 disclaimer of opinions with no adverse opinions. Of the 89 firm-years, five have fiscal year-ends in 1997, 41 in 1998, and 43 in 1999. The firms belong mainly to the industry grouping of consolidated enterprises and industrials.

Following the method adopted by Dechow et al. (1996) and Bartov et al. (2000), we use the logistic regression with a matched-pair control sample. We match the 89 firm-years with modified audit opinions (MAO) to firm-years with unqualified audit opinions by industry and fiscal year. We use the following logistic regression model to test our hypotheses:

\[
\text{OPIN} = \beta_0 + \beta_1 \text{DOM} + \beta_2 \text{FAM} + \beta_3 \text{DOMFAM} + \\
\beta_4 \text{PNED} + \beta_5 \text{SIZE} + \beta_6 \text{BVMV} + \beta_7 \text{DEBT} + \beta_8 \text{ROA} + \\
\beta_9 \text{CRATIO} + \beta_{10} \text{ALAG} + \beta_{11} \text{BIG5}
\]

Where

- **OPIN** = dummy variable coded as 1 for firms receiving modified audit opinions, 0 otherwise
- **DOM** = dummy variable coded as 1 if the CEO is also Chairman of the board of directors, 0 otherwise
- **FAM** = dummy variable coded as 1 for family controlled firms, 0 otherwise
- **DOMFAM** = interaction term of DOM and FAM
- **PNED** = proportion of non-executive directors on the board of directors
- **SIZE** = natural log of total assets at fiscal year-end
- **BVMV** = book-to-market ratio at fiscal year-end
- **DEBT** = ratio of total debt to total assets at fiscal year-end
- **ROA** = ratio of net income to total assets at fiscal year-end
- **CRATIO** = ratio of current assets to current liabilities at fiscal year-end
- **ALAG** = number of days between the firm’s fiscal year-end and the audit report date
- **BIG5** = dummy variable coded as 1 if the firm is audited by a Big 5 auditor, 0 otherwise

The independent variables, including control variables are defined as follows. The variable DOM is a dummy variable for the existence of CEO dominance and is coded as 1 for firms having the position of CEO and Chairman being held by the same individual, and zero otherwise. The variable FAM is coded as 1 for family controlled firms and 0 for non-family controlled firms. Similar to past research on Hong Kong (Mok et al., 1992; Chen and Jaggi, 2000), we define firms as family controlled if an individual or family holds 10 percent or more of the firm’s outstanding common shares and either the individual or at least one member of the family is on the board of directors. We adopt a 10 percent cut-off as regulations in Hong Kong dictate a 10 percent threshold for disclosures of substantial shareholdings in annual reports (see Chen and Jaggi, 2000). The variable DOMFAM is an interaction between the DOM and the FAM variables.
In addition to the test variables, we control for the effects of other variables that may be related to modified audit opinions based on prior studies (see e.g., Beasley, 1996; Jensen and Meckling, 1976; Chen et al., 2001). These variables are the proportion of non-executive directors on the board (PNED), firm size (SIZE), book-to-market ratio (BVMV), leverage (DEBT), profitability (ROA), liquidity (CRATIO), audit report lag (ALAG), and auditor type (BIG5).

Prior research suggests that the presence of non-executive directors improve the quality of a firm’s financial reporting. For instance, Beasley (1996) finds that the presence of proportion of non-executive directors on the board significantly reduces the likelihood of financial statement fraud and Dechow et al. (1996) find that firms in violation of GAAP and manipulated earnings are more likely to have insider-dominated boards. Thus, we expect a negative association between the proportion of non-executive directors and the likelihood of receiving modified audit opinions. We control for non-executive directors using the proportion of non-executive directors on the board (PNED). We control for size as past studies show a negative relationship between firm size and the receipt of a going-concern report (Mutchler, 1985; McKeown et al., 1991). We measure firm size (SIZE) as the natural log of total assets at the fiscal year-end date. Prior research (e.g., Mutchler, 1985; Carcello et al., 1995; McKeown et al., 1991) also finds that the extent of financial distress is positively related to the probability of receiving a going-concern report. We control for financial distress using leverage, profitability and liquidity. Firms with high debt levels have higher bankruptcy risk (see Ohlson, 1980) and are more likely to be in financial distress. We measure leverage (DEBT) as the ratio of total debt to total assets, measured at fiscal year-end date. Firms in financial distress are also more likely to be less profitable and have liquidity problems. We measure profitability as return on assets (ROA) computed as net income divided by total assets, and liquidity as the current ratio (CRATIO), measured at fiscal year-end date. We also control for growth opportunities as indicators for litigation risk. Palepu (1986) argues that firms with high book-to-market ratios are undervalued and thus, are more likely to be targets for acquisition. Lys and Watts (1994) show that firms targeted for acquisition have higher litigation risks. Consequently, such firms are more likely to receive audit qualifications. We use the ratio of book-to-market value (BVMV) at fiscal year-end date as proxy for growth opportunities. Prior research also shows that audit quality affects the type of audit reports issued. We use the BIG5 variable, coded as 1 for firms with Big-5 auditors and 0 otherwise, as control for audit quality. We also control for audit report lag (ALAG) as past studies have shown that firms with weaker financial condition take a longer time for their audit report to be issued (Jaggi and Tsui, 1999), and going-concern opinions are positively associated with audit reporting delay (Raghunandan and Rama, 1995).

We measure ALAG as the number of days between the fiscal year-end and the audit report date.

4. Results

Descriptive Statistics and Correlations among Variables

Table 1 presents descriptive statistics for the sample of 178 firm-years, and also for the sub-samples of the 89 firm-years receiving modified audit opinions (MAO) and their corresponding control firm-years with unqualified audit opinions. The total sample of 178 firm-years shows that 68 percent of the firm-years have a board structure where the CEO also acts as Chairman of the Board while 66.3 percent of the firm-years are family controlled. The average proportion of non-executive directors is 0.38. Of the 89 MAO firm-years sub-sample (control sub-sample), 68.5 percent (67.4 percent) of the firm-years have a board structure where the CEO also acts as Chairman of the Board while 61.8 percent (70.8 percent) of the firm-years are family controlled. The mean proportion of non-executive directors in the MAO sub-sample (control sub-sample) is 0.36 (0.39).

Insert Table 1 here

Multivariate Analyses

The results for the logistic regressions are reported in Table 3. Model (1) presents the results without considering the moderating effects of family ownership and control. The coefficient for the DOM variable is positive but insignificant. The correlation between the OPIN variable and the DOM variable is positive but insignificant. The correlation between the OPIN variable and the FAM variable is negative but insignificant. The results also indicate that firms that are more likely to receive modified audit opinions are significantly and positively correlated with leverage, and audit report delay, and significantly and negatively correlated with the book-to-market ratio, profitability, and liquidity.

Insert Table 2 here

Insert Table 3 here

To test the moderating effects of family ownership and control, we add the DOMFAM
variable, an interaction term between CEO dominance and family ownership, to Model (1) and present the results in Model (2). A plausible explanation for the insignificant result of the DOM variable in Model (1) is that CEO dominance overlaps strongly with family ownership and control. As shown in Table 1, sixty-eight percent of the total sample of 178 firm-years has a board structure where the CEO also acts as Chairman of the Board. A further analysis of these CEO dominant firm-years shows that 73% is family controlled and almost all these firms (98%) have CEOs related to the family. The coefficient of the DOM variable in Model (2) becomes positively significant (p<0.05, one-tailed) when we include the DOMFAM variable, the coefficient for the FAM variable is negative but insignificant and the coefficient for the DOMFAM variable is negative and significant (p<0.05, one-tailed). These results suggest that the positive association between CEO dominance and modified audit opinions applies to non-family controlled firms. In other words, the positive association between CEO dominance and modified audit opinions is weaker for family controlled firms than non-family controlled firms. Thus, the results support our hypothesis H3. This finding is consistent with the view that the abuse of power arising from CEO dominance may be mitigated by the presence of family ownership and control. The results for the control variables are, in general, as expected. Model (1) results show that firms receiving modified audit opinions have higher leverage, lower liquidity, and longer audit report delay than firms receiving unqualified audit opinions. Model (2) results indicate that firms receiving modified audit opinions have higher leverage, lower proportion of non-executive directors, and longer audit report delay than firms receiving unqualified audit opinions.

Limitations

This study is subject to several limitations. First, the small sample size and the short period studied i.e. 1997-1999 reduce the external validity of the study. While this was a period with a relatively high incidence of modified audit opinions, it was also during the time of the financial crisis. It is possible that the pattern of the relationships is unique to this period. Second, we are not able to control for other corporate governance variables such as audit committees since it was not mandatory for firms to have audit committees during the time-period studied. Also, corporate governance is relatively undeveloped in Hong Kong during that time period. Future research should consider the link between modified audit opinions and the role of other corporate governance mechanisms with more recent data. Finally, it should be noted that the results of this study cannot be generalised to other countries with family ownership structures such as Singapore and Indonesia which have different institutional arrangements and are at different stages of development in the capital markets.

5. Conclusion

Based on the widespread interest on the role of corporate governance and family ownership and control in corporate management and the concerns regarding corporate governance in Hong Kong, we examine linkages between CEO dominance, family ownership and control, and the likelihood of firms receiving modified audit opinions. We use 89 modified audit opinions for companies with fiscal year-ends in December 1997 to December 1999, and a matched pair sample design. The results, based on logistic regression analyses, show that the association between CEO dominance and modified audit opinions is not significant, family ownership and control is negatively associated with modified audit opinions, and family ownership and control is found to reduce the positive association between CEO dominance and modified audit opinions. Thus, CEO dominance is positively associated with modified audit opinions in non-family controlled firms. These results suggest that the abuse of power arising from CEO dominance may be mitigated by the presence of family ownership and control.

References


Appendices

Table 1. Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>Total (n=178)</th>
<th>MAO sample (n=89)</th>
<th>Control sample (n=89)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>std. dev.</td>
<td>Mean</td>
</tr>
<tr>
<td>DOM</td>
<td>0.680</td>
<td>0.468</td>
<td>0.685</td>
</tr>
<tr>
<td>FAM</td>
<td>0.663</td>
<td>0.474</td>
<td>0.618</td>
</tr>
<tr>
<td>PNED</td>
<td>0.377</td>
<td>0.142</td>
<td>0.364</td>
</tr>
<tr>
<td>BVMV</td>
<td>0.636</td>
<td>4.433</td>
<td>-0.727</td>
</tr>
<tr>
<td>DEBT</td>
<td>0.560</td>
<td>0.650</td>
<td>0.783</td>
</tr>
<tr>
<td>ROA</td>
<td>-0.461</td>
<td>0.870</td>
<td>-0.688</td>
</tr>
<tr>
<td>CRATIO</td>
<td>2.706</td>
<td>2.893</td>
<td>2.017</td>
</tr>
<tr>
<td>ALAG</td>
<td>138.169</td>
<td>30.329</td>
<td>146.865</td>
</tr>
<tr>
<td>BIG5</td>
<td>0.989</td>
<td>0.106</td>
<td>0.978</td>
</tr>
</tbody>
</table>

DOM = dummy variable coded as 1 if the CEO is also Chairman of the Board of Directors, 0 otherwise
FAM = dummy variable coded as 1 for family controlled firms, 0 otherwise
PNED = proportion of non-executive directors on the Board of Directors
SIZE = log of total assets at fiscal year-end
BVMV = book-to-market ratio at fiscal year-end
DEBT = ratio of total debt to total assets at fiscal year-end
ROA = ratio of net income to total assets at fiscal year-end
CRATIO = ratio of current assets to current liabilities at fiscal year-end
ALAG = number of days between the firm’s fiscal year-end and the audit report date
BIG5 = dummy variable coded as 1 if the firm is audited by a Big 5 auditor, 0 otherwise

Table 2. Pearson Correlation Coefficients (n=189)

<table>
<thead>
<tr>
<th></th>
<th>DOM</th>
<th>FAM</th>
<th>DOMFA</th>
<th>PNED</th>
<th>SIZE</th>
<th>BVMV</th>
<th>DEBT</th>
<th>ROA</th>
<th>CRATIO</th>
<th>ALAG</th>
<th>BIG5</th>
</tr>
</thead>
<tbody>
<tr>
<td>OPIN</td>
<td>0.198</td>
<td>0.679</td>
<td>0.187</td>
<td>-0.080</td>
<td>-0.077</td>
<td>-0.308</td>
<td>0.344</td>
<td>0.261</td>
<td>0.239</td>
<td>0.288</td>
<td>0.107</td>
</tr>
<tr>
<td>DOM</td>
<td>0.198*</td>
<td>0.679**</td>
<td>0.187**</td>
<td>-0.080</td>
<td>-0.077</td>
<td>-0.308**</td>
<td>0.344**</td>
<td>0.261**</td>
<td>0.239**</td>
<td>0.288**</td>
<td>0.107***</td>
</tr>
<tr>
<td>FAM</td>
<td>0.019</td>
<td>0.705**</td>
<td>0.019</td>
<td>-0.039</td>
<td>0.009</td>
<td>0.021</td>
<td>0.094</td>
<td>0.064</td>
<td>0.105</td>
<td>0.041</td>
<td></td>
</tr>
<tr>
<td>PNED</td>
<td>-0.098</td>
<td>-0.186**</td>
<td>-0.098</td>
<td>-0.080</td>
<td>-0.077</td>
<td>-0.308**</td>
<td>0.344**</td>
<td>0.261**</td>
<td>0.239**</td>
<td>0.288**</td>
<td>0.107***</td>
</tr>
<tr>
<td>SIZE</td>
<td>0.283**</td>
<td>0.023**</td>
<td>0.232**</td>
<td>0.428**</td>
<td>0.120**</td>
<td>-0.186**</td>
<td>0.119**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BVMV</td>
<td>-0.232**</td>
<td>-0.232**</td>
<td>-0.073</td>
<td>0.011</td>
<td>0.011</td>
<td>0.011</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DEBT</td>
<td>-0.144**</td>
<td>-0.144**</td>
<td>0.453**</td>
<td>0.196**</td>
<td>0.081</td>
<td>0.055</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROA</td>
<td>0.146**</td>
<td>0.146**</td>
<td>0.081</td>
<td>0.055</td>
<td>0.111</td>
<td>0.011</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CRATIO</td>
<td>-0.049</td>
<td>0.049</td>
<td>0.049</td>
<td>0.049</td>
<td>0.049</td>
<td>0.049</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

***, **, *: significant at the 1%, 5% and 10% level respectively (one-tailed)
OPIN = dummy variable for firms receiving modified audit opinions (MAO), coded as 1 for MAO firms and 0 otherwise
DOM = dummy variable coded as 1 if the CEO is also Chairman of the Board of Directors, 0 otherwise
FAM = dummy variable coded as 1 for family controlled firms, 0 otherwise
DOMFAM = interaction term of DOM and FAM
PNED = proportion of non-executive directors on the Board of Directors
SIZE = log of total assets at fiscal year-end
BVMM = book-to-market ratio at fiscal year-end
DEBT = ratio of total debt to total assets at fiscal year-end
ROA = ratio of net income to total assets at fiscal year-end
CRATIO = ratio of current assets to current liabilities at fiscal year-end
ALAG = number of days between the firm’s fiscal year-end and the audit report date
BIG5 = dummy variable coded as 1 if the firm is audited by a Big 5 auditor, 0 otherwise

Table 3. Logistic Regression Results (n=178) (Dependent variable: OPIN)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model (1)</th>
<th>Model (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coefficient</td>
<td>Wald χ²</td>
</tr>
<tr>
<td>Intercept</td>
<td>10.274</td>
<td>0.000</td>
</tr>
<tr>
<td>DOM</td>
<td>0.243</td>
<td>0.364</td>
</tr>
<tr>
<td>FAM</td>
<td>-1.071</td>
<td>5.913***</td>
</tr>
<tr>
<td>DOMFAM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PNED</td>
<td>-1.685</td>
<td>1.534</td>
</tr>
<tr>
<td>SIZE</td>
<td>0.082</td>
<td>0.263</td>
</tr>
<tr>
<td>BVMM</td>
<td>-0.083</td>
<td>0.824</td>
</tr>
<tr>
<td>DEBT</td>
<td>1.518</td>
<td>3.709**</td>
</tr>
<tr>
<td>ROA</td>
<td>-0.416</td>
<td>0.944</td>
</tr>
<tr>
<td>CRATIO</td>
<td>-0.135</td>
<td>1.977*</td>
</tr>
<tr>
<td>ALAG</td>
<td>0.028</td>
<td>12.935***</td>
</tr>
<tr>
<td>BIG5</td>
<td>-14.537</td>
<td>0.000</td>
</tr>
<tr>
<td>Model χ²</td>
<td>63.960</td>
<td></td>
</tr>
<tr>
<td>p-value</td>
<td>&lt;0.0001</td>
<td></td>
</tr>
<tr>
<td>Pseudo-R²</td>
<td>0.403</td>
<td></td>
</tr>
</tbody>
</table>

***, **, * significant at the 1%, 5% and 10% level respectively (one-tailed)