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# THE TRANSPARENCY OF EXECUTIVE STOCK OPTION DISCLOSURES IN AUSTRALIAN ANNUAL REPORTS

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## **Abstract**

We investigate the transparency of executive stock option disclosures of Australian firms for the financial years ending 2000 and 2002. Transparency is measured using an index based on the requirements of the accounting standards dealing specifically with the disclosure of executive stock options. Our study also examines the relationship between firm characteristics and disclosure transparency and the difference in transparency between the years 2000 and 2002. We find that the transparency of executive stock option disclosures is low but improves a little in the year 2002. We also find that the existence of a compensation committee is positively associated with transparency with size being the only significant control variable. Our results are consistent with the contention of Hope (2003a) that managers of firms appear to be treating mandatory requirements as voluntary, possibly due to the low levels of enforcement of the accounting standards.

*Key Words: Disclosure quality; quality; transparency; compliance; executive stock options.*

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## **1. Introduction**

We investigate the transparency or disclosure quality<sup>1</sup> of executive stock option (ESO) disclosures in the corporate annual reports of Australian firms for the years 2000 and 2002. We use a disclosure index based on the requirements of the accounting standards which address specifically ESO disclosures. There is limited research on the extent of disclosure of ESOs, however, some studies have encountered this issue when conducting a study of executive compensation. For example, Coulton and Taylor (2002), in studying the components of Chief Executive Officer (CEO) compensation, noted the lack of adequate disclosures of ESOs. As well, Maller, Tan and Vyver (2002), in studying the valuation of ESOs, included a short discussion on ESO disclosures observed. Coulton, James and Taylor (2001) are one of the few studies that have focused on the disclosures of CEO stock options in companies' annual reports.

Accounting for ESOs is a very topical issue due to the dramatic increase in their use by large corporate bodies over the past decade (Murphy, 1998). Accounting firms, such as KPMG and Deloitte, argue for greater disclosure requirements rather than recognition requirements (Coulton and Taylor, 2002). Most firms disclose very limited amounts of information about stock options in the notes to the financial statements (Coulton and Taylor, 2002). Greater disclosure is required to assist in providing users of financial statements with better quality information about the financial effects that ESOs have on firms.

This study is motivated by the lack of research that has directly addressed the issue of the disclosure of ESOs, as most prior research focuses on the measurement or recognition of stock options. Previous studies have found that in some environments, firms behave towards mandatory requirements as if they are voluntary (Marston and

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<sup>1</sup> The terms 'disclosure quality' and 'transparency' will be used interchangeably throughout this paper.

Shrives, 1996). In Hope's (2003a) study, which addresses the enforcement of accounting standards in various countries, the results indicate that Australia may be a country where managers treat mandatory standards as voluntary when compared to the enforcement levels in other countries, such as the United States (U.S.) and the United Kingdom (U.K.). Hope's study also suggests that stronger enforcement of accounting standards encourages managers to follow the accounting standards that have been implemented.<sup>2</sup>

In studying the transparency or disclosure quality of ESOs we adopt the definition of Pownall and Schipper (1999). Pownall and Schipper refer to financial statements as being of high quality if they possess three attributes: transparency, full disclosure and comparability. Transparent financial statements are statements that "reveal the events, transactions, judgments, and estimates underlying the statements, and their implications" (Pownall and Schipper, 1999, 262). Transparency allows users to see the results and implications of the decisions, judgments and estimates of preparers. Full disclosure relates to the provision of all information necessary for decision-making, thereby providing reasonable assurance that investors are not misled. Finally, comparability means that similar transactions and events are accounted for in the same manner, both cross-sectionally among firms and over time for a given firm.

Ball, Robin and Wu (2004) claim that quality is an elusive concept. Other definitions of quality include that of Ball et al. (2004) who interpret transparency in financial statements as the timely incorporation of economic income in accounting income, and hence the book value of equity. Lang, Raedy and Yetman (2002) assert that a firm will be more transparent to the market if it provides more informative accounting data.

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<sup>2</sup> Australia rated tenth out of 22 countries in Hope's (2003a) results. The highest scores were exhibited by USA, which scored 1.21, and the UK, which scored 1.16. The lowest score was Spain with -3.65. Australia scored -0.25.

Coulton et al. (2001) define transparency as the level of detail provided in the annual report.

This study contributes to the existing literature in several ways. First, we measure the transparency of ESO disclosures using the requirements of AASB 1028 (1994) 'Accounting for Employee Entitlements' and AASB 1017 (1997) 'Related Party Disclosures', which are assumed to be high quality standards. Second, we examine the association between the transparency of ESOs and firm characteristics. These characteristics include compensation committee, ownership concentration, listing status, size, leverage, performance and Big 5 auditor. Finally, the transparency of ESO disclosures is investigated and compared in the financial years 2000 and 2002.

We find that the transparency of mandatory information pertaining to ESOs is low. Although the level of transparency increases in the year 2002 it still remains low. The existence of a compensation committee is positively associated with transparency with the only control variable that is significant in both models being size. The results appear to support the contention of Hope (2003a), that the managers of firms appear to be treating mandatory requirements as voluntary possibly due to the low levels of enforcement of the accounting standards.

The remaining sections of this paper are as follows. Section 2 describes the legislative background. Section 3 reviews previous literature and outlines the hypotheses. Section 4 outlines the data and research design. Section 5 presents the results and section 6 concludes the paper.

## **2. Background**

There are several pieces of legislation that contain disclosure requirements for executive compensation. These requirements are found in the Corporations Act 2001,

sections s. 300A and s.300 as well as the Australian Accounting Standards AASB 1028 'Accounting for Employee Entitlements', AASB 1017 'Related Party Disclosures' and AASB 1034 'Financial Report Presentation and Disclosures'. The Corporations Act will not be used in this study because s.300A applies broadly to executive compensation, with no specific requirements for ESOs and both s. 300 and s. 300A only require disclosures to be made about the directors and five most highly remunerated officers. These disclosures are required to be made in the directors' report. We are investigating the transparency of ESO disclosures for all executives, not just the five most highly remunerated, in the notes to the financial statements. AASB 1034 'Financial Report Presentation and Disclosures' also is not included because it requires the disclosures of those executives whose remuneration is \$100,000 or more. There may be smaller companies that do not pay their executives these amounts of remuneration, but they may still use ESOs.

Coulton et al. (2001) carried out a study investigating the transparency of CEO compensation, including stock options. Their study used s.300 and s. 300A of the Corporations Law<sup>3</sup> to determine the level of transparency over the three-year period 1998 to 2000, in which a regulatory change occurred. Our study complements their study by examining the transparency of ESOs using the accounting standards AASB1028 (1994) and AASB 1017 (1997) for the years ending 2000 and 2002; the years surrounding the major corporate collapses which occurred in the year 2001. A new accounting standard (AASB 1028 (2001)) was also introduced in this year, effective from 1 July 2002. Therefore, a 30 June financial year-end has been chosen because the new accounting standard, AASB1028 (2001), became effective from 1 July 2002.

AASB 1028 and AASB 1017 establish disclosure requirements for equity based remuneration schemes which include options, in the annual reports of the company.

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<sup>3</sup> Sections s.300 and s. 300A are the same in the Corporations Act 2001 as those sections in the Corporations Law.

AASB 1028 was issued in 1994 and applies to financial years ending on or after 30 June 1995. It was subsequently reissued in June 2001 and is operative for annual reporting periods beginning on or after 1 July 2002. The disclosure requirements of AASB 1028 (2001) are more detailed than those outlined in the previous standard requiring the disclosure of share options and other equity-based instruments that were exercised during the reporting period (and their fair value), lapsed during the reporting period, as well as requiring disclosures for the end of the reporting period, however this standard does not require recognition and measurement of stock options issued. The changes have been made in order to be more closely aligned with the IAS standard as part of the international harmonisation process. AASB 1017 'Related Party Disclosures' was issued in February 1997.

Under these standards stock options are not required to be measured or recognised in the company's accounts (AASB 1028 (paragraph 5(c)). The disclosure requirements for Equity Based remuneration, focusing on ESO disclosures are included in paragraph 14 (d) and are recorded in Appendix A. Although AASB 1017 'Related Party Disclosures' applies to directors, the component of this standard relating to executive director's stock options is relevant for this study. The disclosure requirements for the executive director's stock options are included in paragraph 4.15 and 4.16 and are recorded in Appendix A. For the purposes of our study the above accounting standards are assumed to be of a high quality. That is, firms that fully comply with these standards provide transparent or high quality information.

### **3. Prior Literature and Hypotheses Development**

Several studies have found a relationship between disclosure quality and firm characteristics, measuring quality using either the Association of Investment and

Management Research (AIMR) rankings or the Financial Analysts Federation (FAF) rankings. Studies have shown that disclosure quality is related to both size and listing status (Firth, 1979; Ahmed and Courtis, 1999; Lang et al., 2002). Firms cross-listed in the U.S. are also subject to greater disclosure requirements and enforcement mechanisms (Lang et al., 2002). Higher quality disclosures lead to lower information asymmetry, increased market liquidity (Heflin, Shaw and Wild, 2001), and lower cost of debt (Sengupta, 1998). Other studies provide additional evidence that the level of information disclosed is related to characteristics of the company, for example size and performance (Coulton et al., 2001). Coulton et al. (2001) also show that a change in accounting regulations increased the levels of transparency.

Research examining the levels of compliance with countries' accounting standards indicates that without appropriate enforcement mechanisms, the accounting standards will not be followed completely, even where the standards are of a high quality themselves (Hope, 2003a). The lack of enforcement will allow mandatory requirements to be treated as voluntary as observed in Hope (2003a). The results from Hope's study indicate that Australia is a country where the managers of corporations treat mandatory requirements as voluntary when compared to the U.S. and the U.K. Bradshaw and Miller (2002) found that non-U.S. firms that were voluntarily adopting U.S. GAAP were not applying the standards properly yet still asserting that they were conforming with the standards in order to receive the desired benefits.

Ball et al. (2004), in examining the financial reporting quality and its relationship with the incentives faced by the managers and auditors, report that even when high quality standards are in place, this does not necessarily lead to the information produced being of a high quality. The four East Asian countries included, Hong Kong, Malaysia, Singapore and Thailand, are countries where the financial statements have been heavily influenced by

U.S., U.K. and international accounting standards. Although these standards emphasise financial statement transparency, the financial statements in these countries were found to lack transparency due to the economic and political incentives faced by management.

In our study we are investigating the relationship between the transparency of ESO disclosures of Australian companies and firm characteristics. The firm characteristics include compensation committee, ownership concentration, listing status plus several control variables. As well, the possible impact of corporate collapses on transparency is examined.

### *3.1 Corporate Governance*

Recent corporate collapses, such as Enron and HIH, have contributed to the recognition and disclosure issues surrounding the issuance of ESOs. The agency problem associated with aligning executive's interests with those of the company's shareholders in many cases remains unresolved (Coulton et al., 2001). Issuing stock options to executives is one way in which firms try to reduce this agency problem. By giving the executives ownership in the firm they are then expected to act in the firms' interests and hence, the shareholders interests.

This brings into question the corporate governance mechanisms, such as the compensation committee, which is responsible for determining the compensation given to executives. Coulton et al. (2001) state that one area where corporate governance attributes are frequently cited as being necessary to defend the interests of outside shareholders is executive compensation. Core, Holthausen and Larcker (1999) found evidence that weaker corporate governance is associated with excessive CEO compensation. Based on Core et al., Coulton et al. expected that corporate governance attributes might be associated with the degree of transparency of compensation disclosures. However, Coulton et al. did

not find any direct evidence of governance attributes directly affecting the transparency of CEO compensation disclosures. However, Davis (2001) found a positive association between the existence of a compensation committee and voluntary disclosure. This leads to the first hypotheses:

**Hypothesis 1:** Companies with a compensation committee have more transparent ESO disclosures than companies that do not have a compensation committee.

### *3.2 Ownership Concentration*

Hope (2003b) suggests that a concentrated ownership structure may be associated with management incentives to reduce accounting information quality to the extent that outside investors will not trust the firm's reported earnings. Consistent with prior literature (Claessens et al, 2002 and Fan and Wong, 2002), Hope (2003b) shows that highly concentrated ownership is associated with less investor demand for the role of an analyst, leading to diminished firm value and reduced accounting quality (Hope, 2003b). The above leads to our second hypotheses:

**Hypothesis 2:** Companies with lower ownership concentration provide more transparent ESO disclosures than companies with higher ownership concentration.

### *3.3 Listing Status*

The enforcement of accounting standards is an important issue because without adequate enforcement procedures, the requirements of the mandatory standards can be regarded as voluntary by managers. Hope (2003a) suggests that higher enforcement

encourages managers to comply with the accounting standards that have been implemented. Hope's study raised the issue that some firms are treating mandatory requirements as voluntary. The study provides evidence that Australia has a lower level of enforcement compared to countries such as the U.S., U.K. and Canada. Lang et al. (2002) found that firms which are cross-listed (i.e., listed on the stock exchange of more than one country), and hence subject to enhanced disclosure requirements and increased enforcement, provide more informative accounting data than firms that are not cross-listed.

Firms that are cross-listed appear to exhibit higher disclosure levels. For the purposes of this study cross-listed firms are those that are listed in both Australia and the U.S. Higher levels of disclosure occur because the firms need to fulfil different requirements for the different exchanges, thereby giving them increased disclosure levels. This leads to our third hypotheses:

**Hypothesis 3:** Companies that are also listed in the U.S. have more transparent ESO disclosures than those that are not listed in the U.S.

### *3.4 Corporate Collapses*

When companies fail in the manner of Enron and HIH, the reporting practices of all companies become a focus of investors and other external parties. There is now more pressure for companies to ensure that their annual reports are transparent, presenting a 'true and fair' view of the company's operations. Many companies have now decided to voluntarily disclose information that is not normally required to be disclosed by the accounting standards, particularly in the U.S. This leads to our fourth hypotheses:

**Hypothesis 4:** Executive stock option disclosures have become more transparent in the year 2002 as compared to the year 2000.

## **4. Data and Research Design**

### *4.1 Data*

The firms used in this study have been selected from the top 400 listed companies using the BRW Top 500 for 2002. To be included in the study, these firms must satisfy three criteria:

- a) Financial year ending 30 June<sup>4</sup>;
- b) Listed on ASX for 2000;
- c) Listed on ASX for 2002; and

The total sample size used was 197, pooled for the financial years 2000 and 2002. Figure 1 illustrates the reason companies were eliminated from the sample.

Companies use their annual reports to communicate their progress and performance to outside parties, such as shareholders, potential shareholders and creditors. The annual reports contain both quantitative and qualitative information that can be used by outside parties for investment decisions and lending decisions. We downloaded the annual reports used in this study from the Annual Report Collection (Connect 4) online database. The reports were manually searched for the details on ESO disclosures. The above years have been chosen to observe any changes in the level of disclosure over the three year period due to environmental changes. June 2000 is the financial year before the collapse of major corporations. June 2002 is the financial year after the major corporate collapses and is also the financial year before the implementation of the new accounting standard AASB1028 on 1 July 2002.<sup>5</sup>

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<sup>4</sup> The 30 June financial year end was chosen because the new accounting standard AASB1028 (2001) became effective from 1 July 2002.

<sup>5</sup> This standard was issued in 2001 to be implemented from the financial year beginning 1 July 2002.

#### *4.2 Research Design*

The notes to the financial statements were examined to collect information regarding ESO disclosures. Firms are required under AASB 1028 and AASB 1017 to disclose certain information pertaining to their ESO plans and the issuance of ESOs. The accounting standards are expected to provide the minimum requirements for transparency.

Disclosure quality, in many studies, is measured based on indices formed by the AIMR and the FAF. Studies that have used this approach include Bushee and Noe (1999), Price (1998), and Heflin, Shaw and Wild (2001). These studies are measuring the quality of the information in the financial statements. Other studies have measured disclosure quality as the level, or quantity, of information presented in the annual reports. These studies include Hope (2003a) who uses the scores developed by the Centre for International Financial Analysis and Research (CIFAR) that evaluate disclosure quantity, to measure corporate disclosure quality. Another term frequently used in the literature is 'transparency'. Transparent financial statements, as defined by Pownall and Schipper (1999), are statements that reveal the events, transactions, judgements and estimates underlying the financial statements, and their implications. Coulton et al. (2001) define transparency as the level of detail in the annual reports. We define transparency as the level of compliance of the financial statements with the specific accounting standards. Accounting standards are assumed to provide the minimum level of disclosure to be transparent (as defined in Pownall and Schipper, 1999)<sup>6</sup>.

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<sup>6</sup> This study is not addressing the Corporations Act 2001 because the requirements do not include disclosures for all executives, which is what this study is examining. Coulton et al. (2001) have already completed a study on this requirement, in the Corporations Law, for CEO stock options.

*Transparency of Stock Options Disclosure*

*Dependent Variable*

The dependent variable is disclosure transparency. For the purposes of this study a disclosure index has been developed for ESO disclosures to represent ‘transparency’ based on the information disclosed in the notes to the annual reports. A disclosure index allows us to equally weight each section of the standard in order to calculate a standard score for each company. The disclosure requirements of AASB1028 (1994) and AASB 1017 for equity based compensation have been used to form the index. These standards have been used because they were active for the financial years 2000 and 2002 until 30 June 2002.

Six categories of information have been identified. The first five categories are the information requirements as stated by the accounting standard AASB 1028 (1994). The sixth category is the requirements stated by AASB 1017. The categories for AASB 1028 are: the nature of the equity-based compensation schemes, price information, number and type up to and at reporting date, number and type issued during the year, and accounting policy information. The mandatory requirements for AASB 1017 are: the aggregate number of options acquired, disposed of and held, and the nature of the terms and conditions. A score of one is given for each item in the index that is disclosed, both quantitative and qualitative, and a zero is given if companies do not disclose any of the information required (see Appendix A).

The first dependent variable is a continuous variable which has been calculated as a score out of 1 (or 100 percent). There are six categories in total in the index. To make each category of the index contribute to the total score of 1 (or 100 percent), firstly, the number of components disclosed within a category are added together and then divided by the total number of components in that category. For example, Appendix A contains the scores of a company we have designated as company “X”. In the first category, company “X”

disclosed only one component out of a total four components for that category. The total for that category for company “X” is 0.25 (1/4). This ensures that each category contributes a score of one to the total disclosure score. This procedure is followed for each category. The transparency of ESO disclosures are measured by dividing the actual total score for each company by the total possible score of that a company can achieve. For example, the calculation for company “X” is:  $(0.25 + 0 + 1 + 1 + 0.50 + 0.83)/6 = 0.597$  (Appendix A). The score of 0.597 becomes 59.70 percent, which is the final disclosure score for company “X” and we can conclude that this company discloses 59.70 percent of the mandatory information.

The second dependent variable, a dichotomous dependent variable, is calculated based on the continuous variable. We have explored testing the model using various splits of the 0/1 binary variable. We found the logistic regression model, where 60 percent or greater compliance level is the dependent variable, produced stronger results and additional useful information about the nature of companies with more transparent ESO disclosures.<sup>7</sup> The number of firms complying with the mandatory accounting standards reduces from 84 firms (42.6% of the sample) at the 50% compliance level to 42 firms (21.3% of the sample) at the 60% compliance level.

The Director’s Report was initially examined to determine if the company uses ESOs as part of their remuneration. The Corporations Act (2001) requires information regarding stock options to be disclosed in the directors’ report. Once this was determined, the notes to the financial statements were examined for the information regarding ESOs. Even if the company did not issue options that year, but had an option plan in place, the disclosures still should have been made in relation to the options under the scheme. Several notes were examined in order to capture all necessary information with each

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<sup>7</sup> We found that when we tested the data using a 0/1 binary variable in a regression model, using 50 percent or greater compliance level as the dependent variable, we lost information and the model was not as strong as that using 60 percent or greater compliance level. This was also the case for the univariate tests carried out.

company disclosing the information regarding ESOs differently. These notes include the share capital/contributed equity note, options/ownership based remuneration/executive remuneration/employee entitlements notes and related party transactions.

#### *Additional Analysis – Voluntary Disclosures*

Much of the prior literature in disclosure quality analyses the relationship between voluntary disclosure and firm characteristics. Therefore, we are examining the relationship between the disclosure quality of voluntary information about stock options and firm characteristics.

The voluntary information categories include: early adopters of AASB1028 (2001), fair value information, and the elements of the Black-Scholes valuation model. This has been added because the new version of AASB 1028 was issued in the year 2001 for firm years after 1 July 2002, so some companies may make the decision to comply with it earlier. The fair value and Black-Scholes information has been added into the index because it is information that the companies are not required to provide in relation to stock options issued. AASB1028 does not require the fair value of options issued to be provided. Perhaps in anticipation of the new standard, some companies have started to disclose more voluntary information. A score of one is given for each item in the index that is disclosed, both quantitative and qualitative, and a zero is given if companies do not disclose any of this voluntary information (see Appendix B).

#### *4.3 Independent Variables*

##### *a) Compensation Committee*

A company's compensation committee (C\_COMMEE) is measured using a 0/1 dichotomous variable. A zero is given to those companies who do not have a

compensation committee and a one is given to those companies that do have a compensation committee. Hypothesis one predicts a positive relationship between the existence of a compensation committee and higher transparency.

*b) Ownership concentration*

The empirical proxy used here for ownership concentration (OSHP\_CON) is the extent of minority interest. The extent of minority interest is measured as 100% minus the percentage of wholly owned subsidiaries and therefore is a continuous variable. One of the note disclosures required to be made by Australian companies is a list of the controlled entities (subsidiaries) and the equity holdings in each subsidiary. From this note disclosure, it can be ascertained how many of the subsidiaries are wholly owned and how many subsidiaries have some level of minority interest. The variable, ownership concentration, is measured by the extent of minority stakeholders, that is, one minus the percentage of subsidiaries in each sample company that are wholly owned (McKinnon and Dalimunthe, 1993).<sup>8</sup> Hypothesis two predicts a positive relationship between lower ownership concentration and more transparent disclosures. Here, the larger is the variable the lower is ownership concentration.

*c) Listing Status*

Listing status (LIST\_USA) is measured using a 0/1 dichotomous variable. A zero is awarded where the company is not listed in the U.S., and a score of one is awarded where the company is listed on the U. S. stock exchange. However, the ASX must be the primary

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<sup>8</sup> The focus is on the number of subsidiaries rather than the magnitude of minority shareholdings because a 'case of fraud can be brought by any minority shareholder, and is not dependent on the size of the minority interest' (McKinnon and Dalimunthe, 1993, 42).

listing for the company. Hypothesis three predicts a positive relationship between higher transparency and being listed on the U.S. stock exchange.

### *Control Variables*

#### *a) Size*

The size of a firm can influence the level of disclosures in the companies' annual reports. Larger firms are more visible to the public and can have larger political and agency costs, therefore, larger firms disclose more information than smaller firms and also disclose more voluntary and mandatory information (Ahmed and Courtis, 1999 and Imhoff, 1992). Coulton et al. (2001) have also found that larger firms disclose more voluntary information about the CEO compensation that they award. Size (LOGASSET) is measured as the log of total assets, because of the large difference in the amount of assets, for example \$217,671,000,000 as opposed to \$7,147,707. Based on previous literature, this study predicts that size will be positively related to transparency.

#### *b) Leverage*

Hope's (2003c) results indicate that firms increase disclosure to reduce agency costs. Firms that are more highly leveraged incur more monitoring costs, and therefore attempt to reduce these costs by increasing their disclosures in the annual reports (Jensen and Meckling, 1976). These studies suggest that there will be a positive relationship between leverage and disclosure. The results from studies completed on linking leverage and disclosure levels are inconclusive because of mixed results, with some studies finding a significant association whereas others do not. Leverage (LEVERAGE) is measured as long term debt/total assets, and hence is a continuous variable<sup>9</sup>. This study has no

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<sup>9</sup> This variable was also measured as total liabilities divided by total tangible assets. The results were not as strong using this measure.

prediction for the relationship between leverage and transparency because the prior literature has reported mixed findings.

*c) Performance*

Economic performance has been found to be associated with a firm's disclosure practices. For example, firms that are performing relatively well are more forthcoming in their disclosures as opposed to firms that are performing poorly. These firms may fail to disclose their poor performance in a timely manner (Nagar, Nanda and Wysocki, 2000 and Coulton et al., 2001). Ahmed and Courtis (1992) also found some evidence to suggest that there is a positive relationship between voluntary disclosure levels and profitability. Singhvi and Desai (1971) argue that higher profitability motivates management to provide greater disclosure in the annual reports because it increases investor confidence in the company, which results in an increase in management compensation. There has been conflicting results in the prior literature relating to disclosure levels and performance, and therefore the results of these studies are regarded as inconclusive. The performance (PERFORM) of companies is measured by operating profit after tax scaled by sales, making this a continuous variable. This study has no predictions for a relationship between performance and transparency due to the mixed findings of the prior literature.

*d) Auditor*

Larger audit firms, i.e. Big 5, may be associated with greater disclosure levels (Firth, 1979). Some studies have found a positive relationship between large audit firms and higher disclosure levels (Singhvi and Desai, 1971; Firth, 1979). Ahmed and Courtis (1992) have found that the level of compliance with mandatory requirements is significant for firms' using big audit firms as opposed to those firms using small audit firms. Previous

studies, however, have found a significant negative association between large audit firms and mandatory disclosure compliance (Wallace and Naser, 1995). The auditor (AUDIT) is measured using a 0/1 dichotomous variable. Companies using non-Big 5 auditors are awarded a score of zero and a score of one if they use a Big 5 auditor. There is no prediction on the relationship between the type of auditor and transparency because of the mixed results found in the prior literature.

### *Model Development*

#### *Transparency of Stock Options Disclosures*

This study develops a regression model, based on the information presented above, that examines the association between disclosure transparency and firm characteristics. TRANSP is the function used to examine the relationship between firm characteristics and disclosure quality. The measure of transparency represents a firm's actual disclosure score as a percentage of that firm's total possible disclosure score. The regression model is expressed as follows:

$$\text{TRANSP} = \beta_1 + \beta_2\text{C\_COMMEE} + \beta_3\text{OSHP\_CON} + \beta_4\text{LIST\_USA} + \beta_5\text{BIG\_5} + \beta_6\text{PERFORM} + \beta_7\text{LEVERAGE} + \beta_8\text{SIZE} + \beta_9\text{YR2000/2002} + \varepsilon$$

#### Variable Definitions:

TRANSP	= firm's actual disclosure scores/firm's total possible disclosure scores (continuous variable)
C_COMMEE	= 1 for existence of compensation committee, 0 otherwise (dichotomous variable)
OSHP_CON	= 1 - %wholly owned subsidiaries (continuous variable - the larger is the variable the lower is ownership concentration)
LIST_USA	= 1 for listed in U.S., 0 otherwise (dichotomous variable)
BIG 5	= 1 for Big-5 auditor, 0 otherwise (dichotomous variable)
PERFORM	= Operating profit after tax scaled by sales (continuous variable)

LEVERAGE = Long term debt scaled by total assets (continuous variable)

SIZE = Log of total assets

YR2000/2002 = 0 for year 2000 and 1 for the year 2002

#### *5.4 Descriptive Results*

Table 1 reports the descriptive information on the variables used. Table 2 reports the compliance of firms at different compliance levels. For the year 2000, only 34 of the 96 companies (35%) comply at a level of 50% or greater. Compliance increases for the year 2002 to 50 companies of the 101 companies (50%). By the 60% compliance level, for 2000 only 12 companies (13%) comply and for 2002, compliance increases to 30 companies (30%). For the combined sample, no company has fully disclosed all requirements of the applicable accounting standards. One company is close to full compliance at 92.50%.

[INSERT TABLES 1 and 2 HERE]

Table 3 reports the descriptive statistics for each disclosure component as well as providing the descriptive statistics for the overall disclosure index for mandatory disclosures. The mean for each mandatory disclosure component indicates that companies withhold information regarding their ESOs in all areas of the standard. The highest mean (59.79%) was for the area which consists of information regarding the number and type of equity based instruments acquired up to and still available at reporting date, and the market price of those shares or other equity interests as at the reporting date. Firms are the most forthcoming in this area which is not surprising as these disclosures are the least sensitive or alternatively publicly available information. The component with the lowest mean is the area for price information (29.44%). Firms are withholding how much, if anything, the executives are paying to acquire the stock options. One explanation of this low level of disclosure is that these are the most sensitive disclosures. The average level of overall

compliance with AASB1028 and AASB1017 is 45.16%. This is barely half the amount that they are required to disclose by law. The maximum score achieved was 92.50% by one firm.

[INSERT TABLE 3 HERE]

Table 3 also provides the mean disclosure scores for 2000 and 2002 in order to draw comparisons. In comparing the disclosure components of the financial year 2002, to that of the financial year 2000, it can be seen that the average level of compliance across all components has increased. The component, equity-based instruments acquired up to and still available at reporting date and the market price of the instruments at reporting date still remains the component with the highest mean (65.74%), indicating that this area is where firms are most forthcoming in stock options information. Although the average score for price information has increased in 2002 (34.65%), it still remains the component where firms are the least forthcoming. The average score for total compliance has also increased slightly in 2002 (49.93%) from 2000 (40.14%). In the year 2002, compliance is almost at 50%. After looking at these descriptive statistics for the components of the disclosures index it can be seen that companies in 2002 exhibit greater transparency in their ESO disclosures than 2000.

## **5. Results**

Table 5 presents the correlation among the independent variables and indicates that while there are several statistically significant correlations between some of the variables, none of them are highly correlated.

[INSERT TABLE 4 HERE]

Table 5 reports the results of the linear regression to test the association between transparency and firm characteristics where TRANSP is measured as a continuous

variable. The variable, compensation committee is significant and positive ( $p < 0.05$ ) as predicted, indicating that this measure of corporate governance is associated with increased disclosures. This result is consistent with the expectation of Coulton et al. that corporate governance attributes may be associated with the degree of transparency of compensation disclosures. Their expectation is based on the evidence of Core, Holthausen and Larcker (1999) that weaker corporate governance is associated with excessive CEO compensation. The coefficients for the variables, ownership concentration and listing status, are unexpectedly negative. The variable YR2000/2002 is significant ( $p < 0.05$ ) and positive indicating that the overall disclosures have increased in 2002. The control variables that are significant ( $p < 0.01$ ) and positive are size and Big 5 auditor.

[INSERT TABLE 5 HERE]

Tables 6, 7 and 8 report the results of the model “*Transparency of Stock Options Disclosures*” using the dichotomous dependent variable with 1 set as 60% or greater compliance level and 0 less than 60% compliance. Tables 6 and 7 present the results of the univariate tests conducted to test three of the four hypotheses. Table 6 reports that the variable, compensation committee is significant ( $p < 0.01$ ) and positive, indicating that this measure of corporate governance is associated with increased disclosures. Table 7 shows that the coefficient for the variable, ownership concentration is again unexpectedly negative.

[INSERT TABLES 6 AND 7 HERE]

Table 8 reports the results of the logistic regression to test the relationship between transparency, measured as a dichotomous variable with 1 set as 60% or greater compliance level and 0 less than 60% compliance, and firm characteristics. The results are consistent with the univariate results. The variable, compensation committee is significant and positive ( $p < 0.05$ ) as predicted, indicating that this measure of corporate governance is

associated with increased disclosures. This result is consistent with the expectation of Coulton et al. that corporate governance attributes may be associated with the degree of transparency of compensation disclosures. Once again the coefficients for the variables, ownership concentration and listing status are negative contrary to the predictions. The variable, YR2000/2002, is also significant ( $p < 0.05$ ) and positive indicating that disclosures are increasing in 2002. The control variable, size, is significant and positive ( $p < 0.01$ ) consistent with the literature that larger firms have increased disclosures. Leverage, is another control variable that is significant but negative ( $p < 0.05$ ) indicating that in this disclosure setting firms with higher leverage are not providing more transparent disclosures. In the linear regression the coefficient on leverage although negative was not significant. We had not predicted a direction for leverage as the results from studies linking leverage and disclosure levels have provided mixed results.

[INSERT TABLE 8 HERE]

#### *Additional Analysis – Voluntary Disclosures*

Table 9 reports the descriptive statistics for each disclosure component as well as providing the descriptive statistics for the overall disclosure index for the additional voluntary disclosures. In relation to the voluntary disclosure index, we observe that no companies were early adopters of the new AASB 1028 (2001) accounting standard. The average level of voluntary disclosure is 10.21%.

[INSERT TABLE 9 HERE]

The average scores for the voluntary components have also all increased in 2002 except for the early adopter's component. As before, this component is zero because there were no firms who had adopted the new AASB 1028 (2001) accounting standard. Overall, the average total voluntary disclosure has increased. These results indicate that firms are

providing more voluntary disclosures about their ESOs. For example, although firms are not required to recognise the cost of issuing ESOs, some of the larger firms are disclosing the fact that they are not required to do so in their financial reports for the year ending 30 June 2002.

Table 10 reports the results of the linear regression to test the relationship between voluntary disclosure and firm characteristics. Consistent with the other models, the coefficients for the variables, ownership concentration and listing status, are unexpectedly negative. However, the variable YR2000/2002 is significant ( $p < 0.01$ ) and positive and the control variable, size, significant ( $p < 0.01$ ) and positive which is consistent with the other models.

[INSERT TABLE 10 HERE]

## **6. Summary**

The objective of this study was to evaluate the transparency of ESO disclosures in Australian annual reports. The requirements of the accounting standards AASB 1028 'Accounting for Employee Entitlements' and AASB 1017 'Related Party Disclosures' were used to form a disclosure index to score the disclosures that companies were making because these standards contain specific disclosure requirements for ESOs. We investigated, firstly, the transparency of firms with the mandatory accounting standards (AASB 1028 and AASB 1017), secondly, the characteristics that are related to higher transparency and finally whether transparency of ESO disclosures has improved from the year 2000 to the year 2002.

The results indicate that companies with a compensation committee provide more transparent ESO disclosures than companies without a compensation committee indicating that the existence of a compensation committee may represent stronger corporate

governance promoting more transparent disclosures. Compliance with the ESO disclosures has improved between the year 2000 and 2002. Size is the only control variable that is significant in both models.

Although compliance has improved from 2000 to 2002, overall compliance with ESO disclosures is low. Only four companies displayed 80% or greater compliance with one firm exhibiting 90% or greater compliance level. For the year 2000, only 34 of the 96 companies (35%) comply at a level of 50% or greater increasing to 50 companies of the 101 companies (50%) for the year 2002. The component of the standard with the lowest mean disclosure is price information (29.44%). Firms are withholding how much, if anything, the executives are paying to acquire the stock options indicating that these are the most sensitive disclosures. The surprisingly overall low level of compliance illustrates the perceived negative impact of full disclosure in this controversial area. Perhaps there are limited incentives to comply with the standard considering that Hope (2003a) found Australia to be a country where managers are treating mandatory requirements as voluntary.<sup>10,11</sup>

Our results are subject to several limitations. The first limitation is the sample size of firms using options. The size is mainly due to the very selective criteria used in choosing companies to be included. Another limitation is in regards to the generalisability of the results. Our study is not specific to any particular industry. An avenue for future research would be examining the financial years 2003 to 2005. The AASB1028 accounting standard effective from 1 July 2002 required more detailed disclosures of stock options;

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<sup>10</sup> The Australian Securities and Investment Commission (ASIC) conducted a surveillance project in 2003 and found evidence of non-compliance with accounting standards. This surveillance project was aimed at compliance in general focusing on four accounting standards in particular. It was not a thorough investigation of compliance with all accounting standards. For firms found to be non-compliant with the legislation, the penalties were not severe.

<sup>11</sup> The CLERP 9 Legislation effective for financial years beginning on or after 1 July 2004 requires additional disclosure of share options where a performance condition is or is not applicable.

however, it still did not require the measurement or recognition of ESOs issued. The Australian Equivalents of the International Reporting Standards (AEIFRS) are effective for financial years beginning on or after 1 January 2005. The requirements of the standard related to stock options are more comprehensive than the previous accounting standards, by requiring more details about options to be disclosed as well as the recognition of director and executive stock options in the financial statements.

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### Appendix A: Components of Mandatory Stock Options Disclosure Index

	Reference	Score	Company "X"
<b>AASB 1028 (1994):</b>			<b>2000</b>
<b><i>Nature of Equity Based Compensation Scheme</i></b>			
<input type="checkbox"/> a) description of the nature of the scheme (b) including the number of employees eligible to participate, the groups of employees eligible to participate (if the scheme is not open to all employees),	Para 14 (d)(i)	2	0
<input type="checkbox"/> the number and types of shares or other equity interests employees are able to acquire	Para 14 (d)(i)	1	0
<input type="checkbox"/> the exercise date or period during which employees can acquire shares or other equity interests under the scheme.	Para14 (d)(i)	1	1
<b>Component score</b>		<b>4</b>	<b>1</b>
<b><i>Price Information</i></b>			
<input type="checkbox"/> (a) the price(s) that employees are to pay for any shares or other equity interests issued under an ownership-based remuneration scheme or, (b) if the price(s) are not determinable as at the reporting date, how such prices will be determined.	Para 14(d)(ii)	1	0
<b>Component score</b>		<b>1</b>	<b>0</b>
<b><i>Number and Type Up to and at Reporting Date</i></b>			
<input type="checkbox"/> (a) the number and (b) types of shares or other equity interests that employees have acquired or have become entitled to acquire under the scheme up to the reporting date	Para 14 (d)(iii)	2	2
<input type="checkbox"/> (a) the number and (b) types of shares or other equity interests still available to employees under the scheme as at the reporting date and (c) the market price of those shares or other equity interests as at the reporting date.	Para 14 (d)(iii)	3	3
<b>Component score</b>		<b>5</b>	<b>5</b>
<b><i>Number and Type Issued, During the Year</i></b>			
<input type="checkbox"/> (a) the number and (b) types of shares or other equity interests that have been issued to employees during the financial year	Para 14 (d)(iv)	2	2
<input type="checkbox"/> the total market value of those shares or other equity interests at issue date; and	Para 14 (d)(iv)	1	1
<input type="checkbox"/> the total amount received and/or receivable from employees for those shares or other equity interests	Para 14 (d)(iv)	1	1
<b>Component score</b>		<b>4</b>	<b>4</b>
<b><i>Accounting Policy Information</i></b>			
<input type="checkbox"/> (a) details of the employer's accounting policy in respect of ownership-based remuneration schemes, (b) and any amounts recognised in the accounts and consolidated accounts in relation to the financial year.	Para 14 (d)(v)	2	1
<b>Component score</b>		<b>2</b>	<b>1</b>
<b>AASB 1017</b>			
<input type="checkbox"/> the aggregate number of options acquired by those directors;	Para 4.15 (a)	1	1
<input type="checkbox"/> aggregate number of options acquired classified by issuing entity and class of option	Para 4.15 (b)	1	1
<input type="checkbox"/> the aggregate number of options disposed of by those directors;		1	1
<input type="checkbox"/> aggregate number of options disposed of classified by issuing entity and class of option	Para 4.15 (c)	1	1
<input type="checkbox"/> the nature of the terms and conditions of each different type of transaction if on terms and conditions more favourable than those which it is reasonable to expect the issuing entity would have adopted if dealing with the holder at arm's length in the same circumstances.	Para 4.16	1	0
<input type="checkbox"/> the aggregate number of options held as at reporting date directly, indirectly or beneficially by directors of the reporting entity in any entity in the economic entity classified by issuing entity and class of option.		1	1
<b>Component Score</b>		<b>6</b>	<b>5</b>
<b>Overall Compliance Score for Company "X" = 59.70%</b>			

## Appendix B

### Components of Voluntary Stock Options Disclosure Index

	Score	Company "X" 2000
<b><i>Early Adopters of AASB 1028 (2001):</i></b>		
<input type="checkbox"/> Early Adopters	1	0
<b>Component Score</b>	<b>1</b>	<b>0</b>
<b><i>Fair Value Information:</i></b>		
<input type="checkbox"/> Fair Value of stock options	1	0
<input type="checkbox"/> Methodology for fair Value (e.g. Black Scholes)	1	0
<input type="checkbox"/> Compensation Expense	1	0
<b>Component Score</b>	<b>3</b>	<b>0</b>
<b><i>Black Scholes Components:</i></b>		
<input type="checkbox"/> Exercise Price	1	1
<input type="checkbox"/> Dividend yield	1	0
<input type="checkbox"/> Risk free rate	1	0
<input type="checkbox"/> Volatility of share price	1	0
<input type="checkbox"/> Term of option	1	0
<input type="checkbox"/> Share price at grant date	1	0
<b>Component Score</b>	<b>6</b>	<b>1</b>
<b>Overall Voluntary Score for Company "X" = 5.60%</b>		

**Figure 1**  
**Sample taken from Top 400 Publicly Listed Companies for 2000 and 2002**

<b>Companies included in sample</b>	<b>2000</b>	<b>2002</b>
Companies using stock options as a form of executive compensation	96	101
<b>Reason for elimination from sample</b>		
Not using stock options as a form of executive compensation	47	42
Did not have 30 June year end	67	67
Company was a trust or fund	44	44
Not an Australian company	14	14
Experienced a change in name, i.e. possible change in ownership	109	109
Annual report not available on Connect 4 database	23	23
<b>Total companies eliminated from sample</b>	<b>304</b>	<b>299</b>

**Table 1**  
**Descriptive Statistics of the Firm Characteristics of Firms using Executive Stock Option Disclosures for 2000 and 2002; N=197 (Pooled Sample)**

<i>Variables</i>	<i>Mean</i>	<i>Std. Dev</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Skewness</i>	<i>Kurtosis</i>
Compensation Committee	0.711	0.455	0.000	1.000	-0.936	-1.135
Ownership Concentration	0.062	0.095	0.000	0.548	2.233	6.190
Listing Status	0.030	0.172	0.000	1.000	4.691	20.207
Size	8.554	0.764	6.711	11.397	0.592	1.156
Big 5	0.888	0.316	0.000	1.000	-2.485	4.217
Leverage	0.185	0.205	0.000	1.9812	4.022	30.513
Performance	0.192	3.667	-13.789	48.499	11.424	156.612

Variable Definitions:

C_COMMEE	= 1 for compensation committee, 0 otherwise (dichotomous variable)
OSHP_CON	= 1 - %wholly owned subsidiaries (continuous variable)
LIST_USA	= 1 for listed in U.S., 0 otherwise (dichotomous variable)
BIG 5	= 1 for Big-5 auditor, 0 otherwise (dichotomous variable)
PEFORM	= Operating profit after tax scaled by sales (continuous variable)
LEVERAGE	= Long term debt scaled by total assets (continuous variable)
SIZE	= log of total assets (Size) (continuous variable)

**Table 2**  
**Disclosure Quality of Firms using Executive Stock Options for 2000 and 2002 under AASB1028 and AASB 1017**

<b>Compliance Level (continuous disclosure score)</b>	<b>2000 (n=96)</b>	<b>2002 (n=101)</b>	<b>Total Firms (n=197)</b>
50% or greater	34 (35.4%)	50 (49.5%)	84 (42.6%)
60% or greater	12 (12.5%)	30 (29.7%)	42 (21.3%)
70% or greater	5 (5.2%)	15 (15.6%)	20 (10.2%)
80% or greater	0	4	4
90% or greater	0	1	1

**Table 3**  
**Descriptive Statistics of Disclosure Components (Pooled Sample)**

	Mean	Standard Deviation	Minimum	Maximum	Mean 2000	Mean 2002
<b>Mandatory: (n=197)</b>					<b>(n=96)</b>	<b>(n=101)</b>
<b>AASB 1028 (1994)</b>						
Nature of Equity Based Compensation Scheme	0.3794	0.2295	0.0000	1.0000	0.3567	.4009
Price Information	0.2944	0.4569	0.0000	1.0000	0.2395	0.3465
Number and Type Up to and at Reporting Date	0.5979	0.3362	0.0000	1.0000	0.5354	0.6574
Number and Type Issued, During the Year	0.5520	0.2590	0.0000	1.0000	0.5234	0.5792
Accounting Policy Information	0.3908	0.3600	0.0000	1.0000	0.2864	0.4901
<b>AASB 1017</b>	0.4949	0.3332	0.0000	1.0000	0.4670	0.5214
<b>Total Mandatory Disclosure</b>	0.4516	0.1954	0.0000	0.9250	0.4014	0.4993

**Table 4**  
**Spearman Pairwise Correlation Coefficients between the Explanatory & Control Variables**

<i>Variable</i>	<i>Oshp_Con</i>	<i>List_USA</i>	<i>C_Commee</i>	<i>Big 5</i>	<i>Size</i>	<i>Perform</i>	<i>Leverage</i>
<i>Oshp_Con</i>	1.000						
<i>List_USA</i>	0.177*	1.000					
<i>C_Commee</i>	-0.009	-0.017	1.000				
<i>Big 5</i>	0.089	0.063	0.058	1.000			
<i>Size</i>	0.386**	0.283**	0.193**	0.281**	1.000		
<i>Perform</i>	-0.067	0.074	0.060	0.185**	0.179*	1.000	
<i>Leverage</i>	0.166*	0.119	0.079	0.326**	0.424**	0.060	1.000

\*\*\*, \*\*, and \* indicate significance at  $p < 0.01$ ,  $p < 0.05$  and  $p < 0.10$  respectively

Variable Definitions:

- C\_COMMEE = 1 for compensation committee, 0 otherwise (dichotomous variable)
- OSHP\_CON = 1- %wholly owned subsidiaries (continuous variable)
- LIST\_USA = 1 for listed in U.S., 0 otherwise (dichotomous variable)
- BIG 5 = 1 for Big-5 auditor, 0 otherwise (dichotomous variable)
- PEFORM = Operating profit after tax scaled by sales (continuous variable)
- LEVERAGE = Long term debt scaled by total tangible assets (continuous variable)
- SIZE = Log of total assets (continuous variable)

**Table 5**

**Linear Regression of the Association between Transparency and Firm Characteristics**

$$\text{TRANSP} = \beta_1 + \beta_2 \text{C\_COMMEE} + \beta_3 \text{OSHP\_CON} + \beta_4 \text{LIST\_USA} + \beta_5 \text{BIG\_5} + \beta_6 \text{PERFORM} + \beta_7 \text{LEVERAGE} + \beta_8 \text{SIZE} + \beta_9 \text{YR\_END2} + \varepsilon$$

Variable	Predicted Sign	Coefficient	Std. Error	T-Statistic	Significance
Constant	?	-0.184	0.149	-1.235	0.109
C_COMMEE	+	0.054	0.028	1.916	0.029**
OSHP_CON	+	-0.263	0.134	-1.959	0.052*
LIST_USA	+	-0.163	0.077	-2.110	0.036**
BIG_5	?	0.173	0.042	4.147	0.000***
PERFORM	?	0.001	0.003	0.251	0.401
LEVERAGE	?	-0.070	0.063	-1.100	0.137
SIZE	+	0.051	0.019	2.731	0.004***
YR2000/2002	+	0.087	0.025	3.484	0.001***

\*\*\*, \*\*, and \* indicate one-tailed significance at  $p < 0.01$ ,  $p < 0.05$  and  $p < 0.10$  respectively

Number of observations: 197  
P-value for model: 0.000  
F-statistic for model: 7.285  
Adjusted R<sup>2</sup> for model = 0.204

Variable Definitions:

TRANSP	= firm's actual disclosure scores/firm's total possible disclosure scores (continuous variable)
C_COMMEE	= 1 for compensation committee, 0 otherwise (dichotomous variable)
OSHP_CON	= 1- %wholly owned subsidiaries (continuous variable - the larger is the variable the lower is ownership concentration)
LIST_USA	= 1 for listed in US, 0 otherwise (dichotomous variable)
BIG_5	= 1 for Big-5 auditor, 0 otherwise (dichotomous variable)
PERFORM	= operating profit after tax scaled by sales (continuous variable)
LEVERAGE	= long term debt scaled by total assets (continuous variable)
SIZE	= log of total assets (continuous variable)
YR2000/2002	= 0 for year 2000 and 1 for the year 2002 (dichotomous variable)

**Table 6**  
**Transparency (Higher versus Lower) for Firms by the Existence of a Compensation Committee and Listing Status at the 60% or greater Compliance Level**

	<i>Higher Disclosures = 1 ≥ .60</i>	<i>Lower Disclosures = 0 ≤ .60</i>
<b>Panel A:</b>		
<i>Compensation Committee</i>	38	102
<i>No Compensation Committee</i>	4	53
	$\chi^2 = 9.781$ p = 0.001	
<b>Panel B:</b>		
<i>Listed in USA</i>	1	5
<i>Non Listed in USA</i>	41	150
	$\chi^2 = 0.080$ p = 1.000	

Compensation Committee      0/1 dichotomous variable set to 1 if a compensation committee exists in the company.

Listed in USA                      0/1 dichotomous variable set to 1 if the firm is listed in the U.S.

High/Low Disclosure              0/1 dichotomous variable set to 1 if the firms weighted disclosure score is 50% or 60% or greater.

**Table 7**  
**Transparency (Higher versus Lower) for Firms in relation to Ownership Concentration at the 60% or Greater Compliance Level**

Dependent Variable	Transparency			
	<i>Higher Transparency</i> = 1 ≥ .60	<i>Lower Transparency</i> = 0 ≤ .60		
<i>Ownership concentration</i>	42 0.0351 (0.0525)	155 0.0694 (0.1027)	-2.967	0.004***

\*\*\*, \*\*, and \* indicate significance at  $p < 0.01$ ,  $p < 0.05$  and  $p < 0.10$  respectively

Ownership concentration      1 - % subsidiaries wholly owned (the larger is the variable the lower is ownership concentration)

**Table 8**

**Logistic Regression Analysis of the Association between Transparency and Firms Characteristics at the 60% or Greater Compliance Level**

$$\text{TRANSP} = \beta_1 + \beta_2\text{C\_COMMEE} + \beta_3\text{OSHP\_CON} + \beta_4\text{LIST\_USA} + \beta_5\text{BIG\_5} + \beta_6\text{PERFORM} + \beta_7\text{LEVERAGE} + \beta_8\text{SIZE} + \beta_9\text{YR2000/2002} + \varepsilon$$

Variable	Predicted Sign	Coefficient	Std. Error	Wald Statistic	Significance
Constant	?	-12.360	2.887	18.330	0.000***
C_COMMEE	+	1.353	0.590	5.259	0.011**
OSHP_CON	+	-9.598	3.608	7.076	0.008***
LIST_USA	+	-1.248	1.256	0.987	0.320
BIG_5	?	1.094	0.860	1.618	0.102
PERFORM	?	-0.066	0.185	0.129	0.360
LEVERAGE	?	-2.583	1.560	2.743	0.049**
SIZE	+	1.082	0.326	11.045	0.001***
YR2000/2002	+	0.867	0.407	4.535	0.017**

\*\*\*, \*\*, and \* indicate one-tailed significance at  $p < 0.01$ ,  $p < 0.05$  and  $p < 0.10$  respectively

Number of observations: 197  
 p-value for model: 0.000  
 Chi-Square Statistic: 39.510  
 Nagelkerke R<sup>2</sup>: 0.285

Variable Definitions:

TRANSP = 1 = high disclosure quality when disclosure score is equal to or greater than 60%; 0 = low disclosure quality, (dichotomous variable)  
 C\_COMMEE = 1 for existence of compensation committee, 0 otherwise (dichotomous variable)  
 OSHP\_CON = 1- %wholly owned subsidiaries (continuous variable - the larger is the variable the lower is ownership concentration)  
 LIST\_USA = 1 for listed in U.S., 0 otherwise (dichotomous variable)  
 BIG\_5 = 1 for Big-5 auditor, 0 otherwise (dichotomous variable)  
 PERFORM = Operating profit after tax scaled by sales (continuous variable)  
 LEVERAGE = Long term debt scaled by total assets (continuous variable)  
 SIZE = log of total assets (continuous variable)  
 YR2000/2002 = 0 for year 2000 and 1 for the year 2002 (dichotomous variable)

**Table 9**

**Descriptive Statistics of Voluntary Disclosure Components (Pooled Sample)**

	Mean	Standard Deviation	Minimum	Maximum	Mean 2000	Mean 2002
<b>Voluntary: (n=197)</b>					<b>(n=96)</b>	<b>(n=101)</b>
Early Adopters of AASB 1028 (2001)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Fair Value Information	0.1015	0.2424	0.0000	1.0000	0.0451	0.1551
Black Scholes Components	0.2047	0.2371	0.0000	1.0000	0.1736	0.2343
Total Voluntary Disclosure	0.1021	0.1425	0.0000	0.667	0.0729	0.1298

**Table 10**

**Results of Linear Regression of the Association between Voluntary Disclosure and Firm Characteristics**

$$\text{TRANSP} = \beta_1 + \beta_2\text{C\_COMMEE} + \beta_3\text{OSHP\_CON} + \beta_4\text{LIST\_USA} + \beta_5\text{BIG\_5} + \beta_6\text{PERFORM} + \beta_7\text{LEVERAGE} + \beta_8\text{SIZE} + \beta_9\text{YR\_END2} + \varepsilon$$

Variable	Predicted Sign	Coefficient	Std. Error	T-Statistic	Significance
Constant	?	-0.475	0.107	-4.430	0.000***
C_COMMEE	+	0.018	0.020	0.879	0.191
OSHP_CON	+	-0.191	0.096	-1.978	0.049**
LIST_USA	+	-0.183	0.055	3.298	0.001***
BIG_5	?	0.004	0.030	0.140	0.445
PERFORM	?	-0.001	0.002	-0.431	0.334
LEVERAGE	?	-0.058	0.046	-1.269	0.103
SIZE	+	0.065	0.013	4.857	0.000***
YR2000/2002	+	0.048	0.018	2.669	0.004***

\*\*\*, \*\*, and \* indicate one-tailed significance at  $p < 0.01$ ,  $p < 0.05$  and  $p < 0.10$  respectively

Number of observations: 197  
P-value for model: 0.000  
F-statistic for model: 8.229  
Adjusted R<sup>2</sup> for model = 0.228

Variable Definitions:

TRANSP	= firm's actual disclosure score of additional voluntary information/firm's total possible disclosure score of additional voluntary information (continuous variable)
C_COMMEE	= 1 for compensation committee, 0 otherwise (dichotomous variable)
OSHP_CON	= 1- %wholly owned subsidiaries (continuous variable - the larger is the variable the lower is ownership concentration)
LIST_USA	= 1 for listed in US, 0 otherwise (dichotomous variable)
BIG_5	= 1 for Big-5 auditor, 0 otherwise (dichotomous variable)
PERFORM	= operating profit after tax scaled by sales (continuous variable)
LEVERAGE	= long term debt scaled by total assets (continuous variable)
SIZE	= log of total assets (continuous variable)
YR2000/2002	= 0 for year 2000 and 1 for the year 2002 (dichotomous variable)