

# Australian evidence on corporate governance attributes and their association with forward-looking information in the annual report

Madonna O'Sullivan · Majella Percy · Jenny Stewart

Published online: 13 December 2007  
© Springer Science+Business Media, LLC. 2007

**Abstract** We investigate the role played by a firm's corporate governance framework in the decision to voluntarily disclose forward-looking information in the published financial reports of Australian companies in 2000 and 2002. With respect to the year 2000, the corporate governance category, *audit quality*, consisting of the presence and independence of the audit committee, its meeting frequency, the use of a big 6 auditor and the auditor's independence, is positively associated with the disclosure of forward-looking information. The corporate governance category, *board committees*, consisting of the appointment and independence of a compensation committee and the creation of a nomination committee, and the overall efficacy of the *corporate governance system* are also positively associated with the disclosure of forward-looking information. However, corporate disclosure does not seem to be driven by the same factors in 2002 since in that year none of the governance categories is significantly associated with the firm's decision to publish forward-looking information in financial reports.

**Keywords** Forward-looking Information · Earnings forecasts · Corporate governance · Voluntary disclosure · Quality

**JEL Classification** M40 · M41

---

M. O'Sullivan · M. Percy  
School of Accountancy, Queensland University of Technology, Brisbane, Australia  
e-mail: m.osullivan@qut.edu.au

M. Percy  
e-mail: m.percy@qut.edu.au

J. Stewart (✉)  
Department of Accounting, Finance and Economics, Griffith Business School, Brisbane, Australia  
e-mail: j.stewart@griffith.edu.au

## 1 Introduction

In this study we investigate the role played by the corporate governance framework of Australian companies in the decision to voluntarily disclose forward-looking information in their published financial reports. Forward-looking information in the form of management forecasts has been used as a proxy for voluntary disclosure in a number of prior studies (Healy and Palepu 2001). Furthermore, the disclosure of such information may be viewed as one dimension of financial reporting quality since a financial report containing forward-looking information is more likely to be perceived as being of higher quality (Ajinkya et al. 2005; Karamanou and Vafeas 2005; Clarkson et al. 1994). In the present study we examine the disclosure of all types of forward-looking information, including but not limited to management forecasts, in order to provide a broader representation of the type of information disclosed by firms regarding their future prospects. We consider whether forward-looking information is provided within all narrative sections of the annual report (e.g., chairman's letter, directors' report, review of operations and discussion and analysis), prior to examining how such disclosures relate to the firm's standard of corporate governance.

There are numerous techniques that a firm may use to distribute corporate information to external stakeholders, with earnings forecasts frequently being made under the continuous disclosure regime of the Australian Securities Exchange<sup>1</sup> (ASX). However, the corporate annual report has traditionally been the principal medium for conveying detailed financial and non-financial information on the firm (Botosan 1997). Firms employ the annual report as an important avenue of disclosure, given its effectiveness as a marketing tool and a means of conveying a certain corporate image or message (Preston et al. 1996). Neu et al. (1998, p. 269) suggest that annual reports "provide organisations with an effective method of managing external impressions", in part because the annual report "possesses a degree of credibility not associated with other forms of advertising". Hence, while we acknowledge that the annual report may not be the first avenue of disclosure of forward-looking information, we argue that firms that make high quality disclosures will ensure that their report includes such information.

Prior research indicates that firms with higher standards of corporate governance are more disposed to voluntary disclosure of future information (Hossain et al. 2005; Karamanou and Vafeas 2005; Ajinkya et al. 2005). Hence in this study, we expect to identify a positive relationship between certain corporate governance categories (and the overall standard of corporate governance) and the disclosure of forward-looking information.

This study is motivated by the aim of providing a more detailed examination of the relationship between corporate governance and the voluntary disclosure of forward-looking information in Australian corporate annual reports. Australia provides an interesting setting in which to study such relationships because corporate governance is less regulated than in other regimes such as the United

---

<sup>1</sup> Following a merger with the Sydney Futures Exchange, the Australian Stock Exchange changed its name in December 2006 to ASX Limited, operating under the brand Australian Securities Exchange.

States (Davidson et al. 2005). Indeed, at the time of the present study, there were no formal requirements or recommendations relating to board structure and the use of sub-committees such as the audit committee. Further, while Australian listed companies are required to provide a review of operations in the Directors' Report, the content of the report at the time of the study was unregulated and the disclosure of forward-looking information was not stipulated (Seah and Tarca 2007).

We provide an in-depth representation of corporate governance within the firm by considering a range of fifteen governance mechanisms. In addition, we investigate the broader category of forward-looking information, rather than the narrower category of earnings forecasts (Clarkson et al. 1994). Hence our study contributes to the small but growing body of literature that examines the effect of corporate governance on the quality of financial disclosures (Karamanou and Vafeas 2005).<sup>2</sup> Our findings should be of particular interest to corporate regulators and policy makers who expect a link between stronger governance and greater corporate transparency. The study should also interest regulators who advocate the provision of forward-looking information.

Our study focuses on the years 2000 and 2002. The results reveal that the forward-looking information disclosed by sample firms tends to be expressed in terms of expecting an upward movement in such measures as profit, earnings or income. In the year 2000, disclosing firms typically enjoy a higher standard of corporate governance than non-disclosing firms. In that year, the corporate governance category, *audit quality*, which consists of the presence of an audit committee, its independence, the frequency with which it meets, the adoption of a big 6 auditor and the auditor's independence, is positively associated with the decision to disclose forward-looking information in financial reports. The corporate governance category, *board committees*, consisting of the appointment and independence of a compensation committee and the creation of a nomination committee, and the overall efficacy of the *corporate governance system* are also positively associated with the disclosure of forward-looking information. In 2002, however, none of the governance categories is significantly associated with the firm's decision to publish forward-looking information in financial reports. This is in spite of the finding that the strength of corporate governance in the sample firms increased between 2000 and 2002. Hence, this result suggests that an increased application of corporate governance mechanisms does not necessarily lead to a higher incidence of disclosure, thereby calling into question the effectiveness of such mechanisms in promoting greater transparency.

The paper is structured in the following way. The next section provides the institutional framework for forward-looking information. The third section discusses prior research and develops the hypotheses. Data and method are described in the fourth section while the results are presented in fifth section. The final section provides the concluding comments.

---

<sup>2</sup> Some researchers have pointed out that a firm's voluntary disclosure policy is related to both corporate governance and management incentives (Core 2001; Bushman and Smith 2001). Unfortunately, data on management incentives was not publicly available at the time of our study and hence we leave an examination of firms' simultaneous choice of disclosure, corporate governance structure and management incentives to a future study.

## 2 Institutional background

There are no disclosure rules that relate expressly to earnings forecasts. The decision of whether and how to release forward-looking statements, such as profit projections within the annual report, is ultimately determined by managerial discretion. There are, however, a number of financial reporting guidelines that may have implications for the inclusion of earnings forecasts in the annual report. Many countries have mandated the inclusion of a Management Discussion and Analysis (MD&A) or Discussion and Analysis (D&A) within the annual report. Such nations have not compelled the disclosure of forward-looking information within statutory D&A, however it remains a likely vehicle for the voluntary disclosure of such data.

For example, 1980 saw the introduction of statutory MD&A requirements in the United States (US), including discussions of liquidity, capital resources and the results of operations. The incorporation of forward-looking information such as earnings forecasts is promoted but not mandated. In 1989, Canada introduced legislation based on the US model requiring the inclusion of an MD&A within corporate annual reports. Although the provision of forward-looking information is not obligatory, it is strongly espoused by the Ontario Securities Commission. Similarly, in the United Kingdom (UK), the Accounting Standards Board has formally withdrawn Reporting Statement (RS) 1 Operating and Financial Review and replaced it with a statement of best practice, the Reporting Statement “The Operating and Financial Review”.

In Australia, the Corporations Law,<sup>3</sup> Australian Accounting Standards and the ASX Listing Rules and Guidance Notes all influence the nature of disclosures made within annual reports. D&A requirements were first introduced in 1998 with the release of AASB 1039—Concise Financial Reports.<sup>4</sup> Given that many companies issue concise reports, AASB 1039 has made significant inroads into introducing D&A requirements into Australian accounting regulation. However, the standard does not specifically espouse the disclosure of forward-looking information within such discussion.

In September 1999, the ASX introduced the requirement for a review of operations to be included in directors' reports effective from 2000. ASX Guidance Note “*Review of Operations and Activities: Listing Rule 4.10*” provides guidance on the preparation of the company's review of operations and financial conditions, including identifying items to be included in such a review. Specifically, as it pertains to forward-looking information, a review of operations should include among other things, “operating results of the company ... including a comparison

<sup>3</sup> The Corporations Act 2001 became the new Federal Corporations Law commencing on 15 July 2001. Its enactment is the result of Commonwealth, State and Territory cooperation to fix the problematic constitutionality of the previous Corporations Law scheme identified by the High Court. As a result, corporate annual reports for the year 2000 would have been prepared in accordance with the provisions of the Corporations Law, however the Corporations Act 2001 would apply to the 2002 financial reports.

<sup>4</sup> Section 314 of the Company Law Review Act (CLRA) allows companies and other registered bodies to send either a full traditional annual report or a concise report (containing a profit and loss statement, balance sheet, statement of cash flows and a D&A) to its members.

to prior periods and any projections published by the company ...” and “investments for future performance”.

Our study’s focus on the years 2000 and 2002 is particularly significant in light of the changes to Australian regulation around that time. A starting point of 2000 meant that listed companies were required to include a review of operations in their directors’ reports for the first time in that year. However, most had been producing similar information in the D&A in their Concise Annual Reports since 1998, giving time for “good practice” to be established. Furthermore, our comparison year of 2002 preceded a number of important changes to regulation affecting both corporate disclosure and corporate governance.<sup>5</sup> Hence, the comparatively stable time period chosen for our study enables us to minimize the effects of regulatory change on both disclosure and governance requirements.

### 3 Prior research and hypothesis development

The UK Cadbury Committee (Committee on the Financial Aspects of Corporate Governance, 1992) is credited with providing the momentum for the emergence of studies in the area of corporate governance (Bujaki and McConomy 2002). Specifically, the implementation of certain corporate governance mechanisms is reported to improve financial reporting quality in general, as well as disclosure transparency, and the standard and extent of voluntary disclosure. For example, studies find a positive relationship between voluntary disclosure and the number of independent directors on the board (Leftwich et al. 1981; Forker 1992), the presence of an audit committee (Forker 1992), the dispersion of shareholdings (Hossain et al. 1994) and a higher level of institutional ownership (Bushee and Noe 2000). Further, Narayanan (2000) demonstrates analytically that voluntary disclosure increases as managerial compensation becomes more sensitive to stock prices. In a recent Australian study, Beekes and Brown (2006) report that firms with a higher overall standard of corporate governance tend to make more informative disclosures. A firm’s standard of corporate governance is captured by a governance rating which takes into account attributes such as the independence of the board, its chairman and major committees.

Several studies have found a relation between prospective information and various corporate governance factors. Karamanou and Vafeas (2005) find that the likelihood of making a management earnings forecast is positively associated with stronger corporate governance in the form of more outside directors on the board, a lower level of managerial share ownership, a higher level of institutional share ownership and a smaller audit committee. Ajinkya et al. (2005) report that firms with more independent boards and greater institutional ownership are more likely to issue a management earnings forecast and to forecast more frequently. In the course of investigating the relationship between the level of prospective information

---

<sup>5</sup> Revised Guidance by the Group of 100 for the Review of Operations, CLERP 9 changes to the Corporations Law with respect to audit independence, and the ASX Corporate Governance Council’s Best Practice Recommendations were all released in 2003. S299A Operating and Financial Review requirements were introduced in the Corporations Law in 2004.

disclosed and a firm's investment opportunity set, Hossain et al. (2005) also find the percentage of outside directors on the board to be a significant variable in explaining voluntary disclosure. Finally, Nagar et al. (2003) determine that earnings forecasts are disclosed more frequently as the percentage of Chief Executive Officer (CEO) compensation tied to stock prices increases.

It is predicted in this study that a higher standard of corporate governance is associated with increased disclosure of future information in published financial reports. We group the individual corporate governance attributes into four categories based on current research findings. These categories are board autonomy, board committees, the extent of independent ownership and audit quality. These categories are then amalgamated into a summary measure of corporate governance.

### 3.1 Board autonomy

Board autonomy comprises four governance attributes, namely board independence, the absence of a dominant personality, chair independence and non-executive director shareholdings. It is widely accepted that a positive relationship exists between board independence, measured by the proportion of non-executive directors on the board that are not grey (that is, outsiders with special ties to the company or management), and effective corporate governance (e.g., Core et al. 1999; Young 2000; Ho and Wong 2001). It is argued that outside directors serve as more effective monitors of managerial behaviour, due to greater opportunities and incentives to exercise control (Weisbach 1988; Byrd and Hickman 1992). Specifically, it is argued that board independence may decrease managerial perquisite consumption (Brickley and James 1987). Further, independent directors are less likely to be intimidated by the CEO (Weisbach 1988). Weisbach (1988) finds that the probability of CEO replacement following a period of poor corporate performance is higher for firms with a more independent board of directors. Similarly, Kosnick (1987) argues that demands for greenmail payments are more likely to be resisted by boards with a higher percentage of independent outside directors.

The presence of a dominant personality within the ranks of executive management is thought to hinder effective corporate governance. For example, one individual fulfilling the roles of both CEO and board chair will result in increased managerial domination (Molz 1988). The presence of a dominant personality is found to be associated with poor disclosure, due to the reduced quality of monitoring and increased benefits arising from the withholding of information (Forker 1992). The independence of the board chair is demonstrated to enhance corporate performance (Rechner and Dalton 1991; Donaldson and Davis 1991), improve board effectiveness (Haniffa and Cooke 2002) and enhance the quality of corporate governance (Coulton et al. 2003)

The extent of independence displayed by non-executive directors, as measured by the level of company shareholdings, leads to higher standards of corporate governance (Beasley 1996). Uzun et al. (2004) find that a greater proportion of

outside directors on the board is significantly correlated with a lower occurrence of corporate fraud.

Hence, the independent variable of board autonomy forms the basis of the first hypothesis. Prior research investigating the board of directors reveals a positive relationship between board vigilance and the standard of firm disclosure. We therefore expect a more autonomous board to be associated with increased forward-looking disclosures. This gives rise to the following hypothesis:

*H1:* A positive association exists between board autonomy and the voluntary disclosure of forward-looking information in corporate annual reports.

### 3.2 Board committees

Board committees incorporate the presence and independence of the compensation committee, as well as the appointment of a nomination committee. These committees are associated with improved corporate governance (Forker 1992; Davis 2001). While there are no reported studies that examine a linkage between the existence and structure of board committees and the disclosure of forward-looking information, there are studies that find a relation between more independent board committees and a lower level of both financial reporting problems and corporate fraud (Song and Windram 2004; Uzun et al. 2004). Both of these factors can be regarded as indicators of financial reporting quality. Since financial reports containing forward-looking information are more likely to be perceived as being of higher quality (Ajinkya et al. 2005; Karamanou and Vafeas 2005), we can expect the presence and quality of board committees to be associated with forward-looking disclosures. Hence, this leads to our second hypothesis:

*H2:* A positive association exists between the presence and quality of board committees and the voluntary disclosure of forward-looking information in corporate annual reports.

### 3.3 Independent ownership

The third category of corporate governance relates to the type of ownership structure inherent within the company. This category incorporates the degree of institutional ownership and block shareholdings, as well as ownership dispersion. Institutional investors have a stronger incentive to monitor managerial behaviour due to their large shareholdings (Byrd et al. 1998; DeFond 1992). Substantial shareholders are also more inclined to scrutinise managerial performance, thereby improving corporate governance (Coulton et al. 2003). For example, Denis and Serrano (1996) find that external blockholders are instrumental in removing poorly performing managers, after an unsuccessful corporate control bid.

The dispersion of shareholdings also influences the standard of governance. It is argued that within firms that are characterised by greater concentration of ownership, substantial shareholders wield increased power due to the size of their

shareholdings. It is easier for fewer substantial shareholders to voice an opinion to which management will be forced to listen (Yeoh and Jubb 2001). This includes requests for disclosing relevant information such as that relating to future expectations.

The above arguments point to an association between the independence of ownership and forward-looking disclosures. Thus, our third hypothesis is as follows:

*H3:* A positive association exists between independent ownership and voluntary disclosure of forward-looking information in corporate annual reports.

### 3.4 Audit quality

There is general consensus that the external audit constitutes a keystone of corporate governance (Cadbury Committee 1992), in that external auditors serve as gatekeepers who monitor managerial behaviour on behalf of firm stakeholders. It is argued that without efficient gatekeeping, the very structure of corporate governance is in jeopardy (Coffee 2001). The positive relationship existing between the external audit function and the standard of corporate governance is obviously strengthened by the quality of the auditor (Yeoh and Jubb 2001). This variable considers a number of facets often associated with improved audit quality, including the presence and independence of audit committees and the frequency of audit committee meetings. This is because an important role of audit committees is to monitor both audit quality and financial reporting quality (Walker 2004; Davidson et al. 2005). Further, as the effectiveness of the auditor may enhance audit quality, auditor size and independence are also incorporated into the fourth independent variable. Hence, audit quality forms the basis of the next hypothesis:

*H4:* A positive association exists between audit quality and voluntary disclosure of forward-looking information in corporate annual reports.

### 3.5 Summary corporate governance measure

This study also examines the combined effect of all corporate governance categories within the firm on corporate disclosure of forward-looking information. Many prior studies investigate just one or two corporate governance mechanisms. However, an important contribution of this research is that it assigns an overall corporate governance score to each firm by combining the individual governance mechanisms within each of the four independent variables. This allows for the possibility that companies may choose from a portfolio of corporate governance mechanisms. However, given that stronger overall corporate governance should lead to improved financial reporting transparency, it is reasonable to expect that a stronger governance system (reflected in a higher corporate governance score) will be associated with more forward-looking disclosures. Hence, a firm's overall governance score provides the foundation for the fifth hypothesis:



*H5*: A positive association exists between the strength of a firm's corporate governance system and the voluntary disclosure of forward-looking information in corporate annual reports.

### 3.6 Control variables

Prior literature identifies a number of other factors also likely to have an impact upon a firm's voluntary disclosure policy. The control variables included in the model are firm size, firm performance, information environment and leverage. Previous disclosure studies indicate that a positive association exists between voluntary disclosure and firm size (Kent and Ung 2003). This relationship applies in the context of both disclosure quality (Lang and Lundholm 1993) and quantity (Coulton et al. 2003). In relation to the voluntary disclosure of forward-looking information in particular, larger firms are also more likely to divulge earnings forecasts than smaller firms (Cox 1987; Choon et al. 2000).

Empirical research finds that firm performance is associated with corporate disclosure, but results are mixed. Many studies document a positive relationship between firm performance and voluntary disclosure (Lev and Penman 1990; Lang and Lundholm 1993; Botosan 1997). With regard to forward-looking information, Cahan and Hossain (1996) report that strongly performing firms are more likely to voluntarily disclose earnings forecasts. However, other studies suggest that relatively poor performers are prone to greater disclosure (Skinner 1994, 1997). Therefore, while a relationship is likely to exist between firm performance and voluntary disclosure, the direction is uncertain.

The firm's information environment is another factor reported to shape a firm's disclosure policy. Firstly, the extent of growth opportunities available to the firm is often used to reflect a firm's information environment (Lang and Lundholm 1993, 1996). In turn, firms with a higher percentage of growth options relative to assets-in-place are associated with increased disclosure (Hossain and Ahmed 2000). Other research suggests that the need for external finance to fund future growth opportunities prompts such firms to increase their voluntary disclosure (Core 2001). Specifically, to decrease the unacceptably high level of information asymmetry characteristic of growth firms, these firms have an incentive to increase their voluntary disclosure to minimise the cost of capital (Strebel 1996).

A number of studies evaluate the association between firm leverage and disclosure. Voluntary disclosure can alleviate information asymmetry, thereby decreasing the borrower's apparent risk of default, in turn reducing the cost of capital (Baiman and Verrecchia 1996; Sengupta 1998). Hence, managerial disclosure may be aimed at securing capital at minimum cost (Cooke 1989). However, it should also be noted that empirical studies present mixed findings. Some researchers document a positive relationship between leverage and voluntary disclosure (Bradbury 1992) while others fail to find any statistically significant association between leverage and disclosure (Craswell and Taylor 1992; Hossain et al. 1994; Raffournier 1995) or report a significant negative relationship (Meek et al. 1995). Thus the direction of the expected association is not predicted.

## 4 Data and research method

### 4.1 Data collection

The data collection process involves the acquisition of the 2000 and 2002 published annual reports of the largest 300 publicly listed firms according to net profit for the year 2000, as identified in the Business Review Weekly (BRW). The years 2000 and 2002 are chosen for consideration in order to provide a contrast between the corporate governance structures in place within firms before and after a number of high-profile corporate collapses, such as Enron Corporation in the US and HIH Insurance Ltd in Australia. In addition, as previously noted, this time period preceded a number of key changes to regulation which may have impacted corporate disclosure and corporate governance. The research design is adapted from the Canadian study of Clarkson et al. (1994) and tailored to an Australian institutional setting, with reference to Choon et al. (2000).

The potential sample size is reduced by excluding listed property trusts, listed investment trusts, funds and trustee companies.<sup>6</sup> We also exclude foreign listed firms and those companies where corporate annual reports fail to cover at least 6 months. From the remaining 239 firms, we then select 200 companies on the basis that their annual reports can be readily obtained. In relation to the sample for 2002, certain firms have since delisted, reducing the sample size to 183 firms.

### 4.2 Models

The following logistic regression model is adopted to test Hypotheses 1–4:

$$\text{FLI} = \alpha + \beta_1\text{BOARD} + \beta_2\text{COMMEE} + \beta_3\text{OSHIP} + \beta_4\text{AUDIT} + \beta_5\text{SIZE} + \beta_6\text{PERFORM} + \beta_7\text{INFO} + \beta_8\text{LEVG} + \varepsilon$$

where: FLI, Disclosure of forward-looking information in financial report; BOARD, Board autonomy; COMMEE, Presence and value of board committees; OSHIP, Independent ownership; AUDIT, Audit quality; SIZE, Firm size; PERFORM, Firm performance; INFO, Information environment; LEVG, Firm leverage.

Our second model measures the effect of the firm's overall corporate governance framework (CG) on the voluntary disclosure of prospective information and is used to test Hypothesis 5. The model is specified as follows:

$$\text{FLI} = \alpha + \beta_1\text{CG} + \beta_2\text{SIZE} + \beta_3\text{PERFORM} + \beta_4\text{INFO} + \beta_5\text{LEVG} + \varepsilon$$

where: FLI, Disclosure of forward-looking information in financial report; CG, Summary corporate governance score; SIZE, Firm size; PERFORM, Firm performance; INFO, Information environment; LEVG, Firm leverage.

<sup>6</sup> These entities are excluded on the basis that they are not expected to be forecasters, as they have more volatile earnings (Kent and Ung 2003). Listed trusts are also subject to additional mandatory accounting requirements that may affect their accounting policy and disclosure decisions.

### 4.3 Specification of dependent variable

The dependent variable is the voluntary disclosure of forward-looking information in corporate financial reports. This variable reflects but is not limited to earnings forecasts, which are the focus of the study conducted by Clarkson et al. (1994). Their definition of earnings forecasts is adopted to assist with the identification of such statements within Australian financial reports:

Unambiguous quantitative or qualitative statement of the expected direction of change in operating results for the upcoming fiscal year is included in its annual report. A non-forecasting firm is one which hedges discussion so that the expected direction of change was unclear or if it involved either what-if scenarios (i.e., sensitivity analyses) or forecasts of macro variables (e.g., the economy, interest rates) without relating them to the firm's own operating results. (p. 429).

The application of this definition however does not preclude the investigation of other forward-looking information which does not qualify as an earnings forecast. Rather, provided the projection can be classified in terms of the following four characteristics, it is recognised as a forward-looking statement for the purposes of this study:

direction (up, down or no change);  
type (income/profit, cash flow, sales/revenue);  
location (Directors' Report, CEO's/Managing Director's Report, Review of Operations, Chairman's Report, D&A and other); and  
nature (qualitative, quantitative).

To determine whether sample firms disclose forward-looking information within their annual financial reports, all narrative matter in the full and concise financial reports is read. The dependent variable, FLI, is dichotomous. It is assigned a value of one if the company discloses forward-looking information within its corporate financial report and zero otherwise.

### 4.4 Specification of independent variables

Table 1 summarises each of the independent variables, together with the corporate governance attributes, the way in which these attributes are measured, and their expected relationship with voluntary disclosure. A similar procedure to Brown and Caylor (2006) is followed in this study. They use detailed corporate governance data encompassing 51 provisions spanning eight governance dimensions to create a broad summary corporate governance measure. Brown and Caylor code each of the 51 factors as either 1 or 0 depending on whether Institutional Shareholder Services (ISS) considers the firm's governance for that attribute to be minimally acceptable. These binary variables are then summed to derive a corporate governance score. Each of the 51 corporate governance provisions are categorised into one of the eight governance dimensions of ISS.

**Table 1** Independent variables

Independent variable	Corporate governance attribute	Measure	Reference	Expected relationship
Board Autonomy (BOARD)	Board independence	% of non-executive directors on the board ... that are not grey directors	Leftwich et al. (1981); Forker (1992); Core et al. (1999)	+
	Absence of dominant personality	Separation of roles of CEO and Chairperson	Coulton et al. (2003)	+
	Independence of the chair	Chairperson is non-executive director	Coulton et al. (2003)	+
Presence and Quality of Board Committees (COMTEE)	Outside director ownership	% of outside director share ownership	Beasley (1996)	-
	Compensation committee	Firm has compensation committee	Davis (2001)	+
	Independence of compensation committee	% of non-executive directors on compensation committee	Byrd et al. (1998)	+
Independent Ownership (OSHIP)	Nomination committee	... that are not grey directors	Core et al. (1999)	+
	Institutional ownership	Firm has nomination committee	Davis (2001)	+
	Block shareholdings	Top shareholder is institutional investor	Brickley et al. (1988)	+
	Concentration of shareholdings	% of ordinary shareholders' equity held by block shareholders (i.e. more than 5% of ordinary shareholders' equity) % of shareholdings held by top 20 investors	Coulton et al. (2003) Yeoh and Jubb (2001)	+

**Table 1** continued

Independent variable	Corporate governance attribute	Measure	Reference	Expected relationship
Audit quality (AUDIT)	Audit committee	Firm has audit committee	Forker (1992)	+
	Independence of audit committee	% of non-executive directors on audit committee	Ho and Wong (2001) Wright (2001)	+
	Frequency of audit committee meetings	... that are not grey directors Number of audit committee meetings per year	Core et al. (1999) Peasnell et al. (2005)	+
Audit firm size	Big 6 or non-Big 6	Big 6 or non-Big 6	McMullen and Raghunandan (1996)	+
			Lennox (1999) Yeoh and Jubb (2001); Coulton et al. (2003)	
Auditor independence	Auditor independence	Audit fees as % of total fees paid to auditor	DeFond et al. (2002)	+

Another similar study is that of Gompers et al. (2003) who construct a "Governance Index" using the incidence of 24 governance rules to proxy for the level of shareholder rights at about 1500 large US firms in the 1990s. The main data source for the study is the Investor Responsibility Research Centre (IRRC), which publishes detailed listings of corporate governance provisions used in the defence of a takeover. The researchers divide these provisions into five groups including, for example, tactics for delaying hostile bidders.

A more intricate analysis of corporate governance measures is undertaken by Larcker et al. (2005) who examine the relation between a broad set of corporate governance indicators and various measures of managerial decision making and organizational performance. Their method involves extracting 39 structural measures of corporate governance from a sample of 2,106 firms and combining them into 14 governance constructs using principal components analysis.

In our study, the measures of corporate governance attributes and the research that supports these measures is presented in Table 1. The first independent variable, board autonomy (BOARD), reflects board independence, the absence of a dominant personality within the firm, the independence of the chair and non-executive director shareholdings. Board independence is captured by the percentage of non-executive directors comprising the board that are not grey directors. The absence of a dominant personality refers to the separation of the roles of CEO and board chair. The independence of the chair is concerned with the appointment of a non-executive director to the position of board chair. Lastly, the percentage of non-executive director share ownership is used to reflect director independence.

The corporate governance attributes comprising the category BOARD (as well as the other corporate governance categories) are assessed according to whether they are represented by binary or continuous values. In the case of dummy variables, their actual value is added to the score for BOARD. With respect to continuous variables, their impact upon a firm's corporate governance index depends on their magnitude with respect to the average value of that variable for all firms. If a firm exhibits a continuous variable greater than or equal to the mean, one point is added to its corporate governance score. Conversely, if the value of a firm's continuous variable for that governance attribute is lower than the mean, no points accumulate toward the BOARD score. Given that four internal corporate governance attributes are considered to calculate a score for the first independent variable, the maximum value for BOARD is four. However, in order that no one governance variable is implicitly assumed to have a greater impact on the firm's corporate governance structure than any other, individual scores for each independent variable are standardised to one. This is achieved by dividing each component score by the number of attributes reflected in that component. For example, the score reflecting the variable BOARD is comprised of four governance attributes and is thus divided by four.

The second independent variable relates to board committees (COMMEE) and is comprised of three separate corporate governance attributes. The presence and independence of a compensation committee, as well as the appointment of a nomination committee are determined to calculate the value of the COMMEE score.

We use the percentage of committee members who are non-executive and not grey directors to measure the independence of the compensation committee.

The next independent variable considers the ownership structure prevalent within the firm (OSHIP). The extent of institutional ownership is determined by whether or not the largest shareholder within the firm is an institution.<sup>7</sup> The presence of block holdings within firms is captured by the percentage of ordinary shareholders' equity held by block shareholders (where holdings of greater than 5% of ordinary shareholders' equity comprise a block holding). Finally, the percentage of shareholdings held by the top twenty investors captures the concentration of firm shareholdings.

The final measure of corporate governance pertains to the audit function. A firm's audit quality (AUDIT) is assessed by determining whether the firm has appointed an audit committee and how often that committee meets.<sup>8</sup> In addition, the extent of that committee's independence is reflected in the proportion of non-executive directors comprising the committee, where such directors are not grey. Further, audit firm size is used to gauge audit quality, with reference to whether or not the auditor is a Big 6 firm. Although the market perceives Big 6 auditors to be of higher quality (Balsam et al. 2003), certain misgivings have emerged regarding the validity of using this proxy to capture audit quality. As a result, the more recent measure of auditor independence as reflected in fees paid for the provision of non-audit services is also incorporated into the AUDIT variable (DeFond et al. 2002). Specifically, the lower the amount of fees paid by clients, to their auditors for non-audit services, the more independent the auditor.

The final independent variable is a summary measure of corporate governance, which takes into account values calculated for the categories, BOARD, COMTEE, OSHIP and AUDIT. We calculate an overall corporate governance score (CG) for each company, by adding together the standardised values for each of the preceding four independent variables. It follows that the highest possible overall governance score for a firm is four. This approach is similar to that of Yeoh and Jubb (2001)

<sup>7</sup> With respect to the notion of institutional investment, further elucidation is required. First, the ASX defines an investment institution as follows:

*those bodies with large investable funds, for example, pension funds, insurance and assurance companies.*

Within an Australian setting, a publicly listed institutional investor will fall within one of the following three industry groupings of banks, investment and financial services and insurance. On a practical level, the above guidelines will not capture all possible institutional investors, necessitating that further rules of classification be applied in order that non-institutional investors be accurately identified. As a general rule, an entity will not be considered an institutional investor where it is a:

- private company within Australia or overseas; or
- foreign corporation within an industry dissimilar to the Australian industry groupings of banks, insurance, investment and financial services.

<sup>8</sup> The use of audit committees is included in the measure of audit quality (rather than board committees), given the close relationship observed between these two aspects of corporate governance. Indeed, the Cadbury Committee (1992) maintains that an audit committee should provide a structure within which external auditors can affirm their independence, as well as strengthening the internal audit function. Further, Abbott and Parker (2001) argue that an active and independent audit committee is more inclined to demand higher audit quality.

who compute an overall score to reflect corporate governance within a firm, whilst investigating an association between corporate governance and audit quality.

#### 4.5 Specification of control variables

Table 2 presents each of the controls, along with the proxies used to capture their values and expected associations with voluntary disclosure. The size of the firm (SIZE) is measured by the log of sales. Return on assets is used as a proxy for firm performance (PERFORM), while the book-to-market ratio reflects the firm's information environment (INFO). Lastly, the debt-to-total assets ratio is employed as the surrogate for firm leverage (LEVG). The regressions are repeated using alternative specifications of the control variables.<sup>9</sup>

## 5 Results

### 5.1 Nature of forward-looking information disclosed

Table 3 summarises the characteristics of forward-looking information collected from the annual reports for sample firms for the years 2000 and 2002 respectively. The published financial reports of the firms are perused to ascertain whether forward-looking information is included within the narrative material, as well as the type of forward-looking information that is disclosed. Table 3 indicates that in 2000 a total of 282 forward-looking statements are made by 102 firms. The majority (79%) of these statements are qualitative in nature, and predict an upward movement in firm performance (88%). Most statements are made within the chairperson's and/or the CEO's reports. A similar trend is identified for 2002, with 103 firms making a total of 297 forward-looking statements. Again, the majority of these statements are qualitative (83%), anticipate an improvement in corporate performance (97%) and appear within the chairperson's and/or the CEO's reports.

### 5.2 Descriptive statistics

Table 4 summarises the descriptive statistics for the overall governance scores, the four independent variables and the individual governance attributes for the years 2000 and 2002 respectively. The table shows that the mean value of the overall governance score for all firms is 2.28 for 2000, increasing to 2.70 for 2002. An ANOVA test reveals that these are significantly different at  $p < 0.001$ . The scores

---

<sup>9</sup> The second set of proxies for the control variables also incorporates the debt-to-total assets (LEVG) and book-to-market ratios (INFO). However, the log of total assets is used to reflect firm size (SIZE), whereas the earnings per share ratio is substituted to capture firm performance (PERFORM). The final set of surrogates applied to determine the robustness of the original regression results, does not introduce any new measures. It consists of the log of sales (SIZE), earnings-per-share (PERFORM), earnings-price ratio (INFO) and debt-to-total assets (LEVG).



**Table 2** Control variables

Control	Proxy	Expected relationship with voluntary disclosure
Firm size	Log of sales;	+
SIZE	Log of total assets (alternative) (Coulton et al. 2003);	
Firm performance	Accounting-based measure: Return on assets	?
PERFORM	Market-based measure: Earnings per share (AICPA 2001)	
Information environment	Book value of firm equity/market value of firm equity (Lang and Lundholm 1993, 1996);	+
INFO: growth opportunities	Earnings/price ratio (alternative);	
Leverage	Debt to assets	?
LEVG	(Osteryoung 2002, p. 2) Interest coverage (alternative);	

**Table 3** Characteristics of forward-looking information

Characteristics	2000 (282 statements, 102 firms)		2002 (297 statements, 103 firms)	
	# Statements	%	# Statements	%
Qualitative	224	79	246	83
Quantitative	58	21	51	17
		100		100
Relate to profit/earnings/income	152	54	147	49
Relate to cash flows	5	2	17	6
Relate to sales/revenue	125	44	133	45
		100		100
In Directors' report	23	8	12	4
In CEO's/Chairman's report	115	41	151	51
In review of operations	73	26	102	34
In D&A	5	2	3	1
In other narrative	66	23	29	10
		100		100
Indicate upward movement	248	88	288	97
Indicate downward movement	22	8	4	1
Indicate no change	12	4	5	2
		100		100

for both years approximate a normal distribution. Further analysis indicates that, in 2000, the firm with the highest corporate governance score does in fact disclose forward-looking information while the firm with the lowest corporate governance score does not reveal any forward-looking information. Also worthy of note is the

**Table 4** Corporate governance variables (2000 vs. 2002)

Variable	Attribute	2000				2002			
		Mean	Median	Min	Max	Mean	Median	Min	Max
Overall corporate governance score	(2000 vs. 2002: $p < 0.001$ ) <sup>a</sup>	2.28	2.35	0.65	3.5	2.7	2.8	1.32	3.5
BOARD	(2000 vs. 2002: $p < 0.001$ )	0.589	0.500	0	1	0.568	0.500	0	1
	Dominant personality	0.890	1	0	1	0.891	1	0	1
	Chair independence	0.815	1	0	1	0.842	1	0	1
	Board independence	0.552	0.600	0	1	0.533	0.563	0	1
	Non-executive director ownership	0.056	0.003	0	0.928	0.058	0.004	0	0.661
COMMEE	(2000 vs. 2002: $p = 0.121$ )	0.508	0.667	0	1	0.510	0.667	0	1
	Compensation committee	0.740	1	0	1	0.796	1	0	1
	Independence of compensation committee	0.657	0.667	0	1	0.673	0.750	0	1
	Nomination committee	0.285	0	0	1	0.320	0	0	1
OSHIP	(2000 vs. 2002: $p < 0.001$ )	0.503	0.667	0	1	0.834	1	0.667	1
	Top institutional owner	0.485	0	0	1	0.503	1	0	1
	Block shareholdings	39.390	37.830	0	97.660	41.834	42.500	0	97.760
	Concentration of shareholdings	63.748	66.360	0.498	99.460	64.140	65.530	12	99.290
AUDIT	(2000 vs. 2002: $p < 0.001$ )	0.676	0.600	0	1	0.781	0.800	0.200	1
	Audit committee	0.960	1	0	1	0.978	1	0	1
	Independence of audit committee	0.652	0.667	0	1	0.674	0.667	0	1
	Frequency of audit committee meetings	3.599	4	0	14	3.989	4	1	14
	Big 6 auditor	0.885	1	0	1	0.907	1	0	1
	Independence of auditor	0.546	0.533	0.069	1	0.562	0.553	0.087	1

Variable definitions

BOARD, Board autonomy (standardised value)

COMMEE, Presence and quality of board committees (standardised value)

OSHIP, Independent ownership (standardised value)

AUDIT, Audit quality (standardised value)

<sup>a</sup> ANOVA RESULTS

fact that the number of firms with the maximum corporate governance score grew from only one firm in the year 2000 to twelve firms for 2002. Of these twelve firms, eight disclose forward-looking information within their financial reports. Two companies exhibit the minimum corporate governance score, and neither of these makes any forward-looking statements within their financial reports. Incidentally, the minimum corporate governance score also shows substantial improvement from 2000 to 2002.

None of the four independent variables deviates substantially from a normal distribution, as evidenced by their values of skewness and kurtosis (not reported). Further, the mean values of three of the four variables increase from 2000 to 2002, indicating an overall improvement in corporate governance. An ANOVA test reveals that these three variables, OSHIP, BOARD and AUDIT, are significantly different at  $p < 0.001$ . Indeed, OSHIP (independent ownership) in particular shows a marked increase from 2000 to 2002. Descriptive statistics for the individual governance attributes also indicate that, in general, the mean values increase from 2000 to 2002.<sup>10</sup>

Table 5 provides the mean corporate governance scores and independent sample tests for disclosing and non-disclosing firms. The table shows that the mean overall corporate governance score of disclosing firms (2.40) is higher than that of non-disclosers (2.16). This result is statistically significant ( $p = 0.0009$ ). However, in 2002, there is no significant difference between the mean scores for disclosing (2.69) and non-disclosing (2.71) firms.

This table also presents the mean values for each of the four governance categories for the 2 years under investigation. In relation to the year 2000, the analysis suggests that firms disclosing forward-looking information exhibit stronger corporate governance in two categories. The mean values for COMMEE (the presence and quality of board committees) and AUDIT (audit quality) are higher for disclosing firms than non-disclosing firms. *T*-tests indicate that these results are statistically significant ( $p = 0.0022$  for COMMEE and  $p = 0.0008$  for AUDIT). The categories BOARD (board autonomy) and OSHIP (independent ownership) do not differ significantly between disclosing and non-disclosing firms. With respect to 2002, differences between the disclosing and non-disclosing firms in terms of corporate governance are generally not statistically significant. The one exception is the category BOARD, which is marginally significant ( $p = .0981$ ) but in the opposite direction to that predicted.

The results of Mann-Whitney Tests for the fifteen individual corporate governance attributes that comprise the four categories of corporate governance are also reported in Table 5.<sup>11</sup> Disclosing firms exhibit stronger governance attributes than non-disclosing firms, for ten of the 15 measures outlined above. At one-tailed significance levels, there are statistically significant differences between disclosing and non-disclosing firms in terms of six corporate governance attributes. Specifically, disclosing firms are more likely to form audit and compensation committees, as well as appoint Big 6 auditors, than non-disclosing firms. Further, the audit committee of the former is likely to be more independent than that of the latter. At a 10% level of significance, both non-executive director ownership and independence of the compensation committee are also significant. In 2002, the results indicate that disclosing firms exhibit stronger corporate governance with respect to only seven of the fifteen attributes outlined above. However, in contrast to

---

<sup>10</sup> The results are rerun with all continuous variables standardized. The results stay essentially unchanged.

<sup>11</sup> Non-parametric tests are undertaken for these variables because tests indicate that in some cases, the assumptions of normality are violated. However, the results reported do not differ materially from those of parametric tests.

**Table 5** Disclosers vs. non-disclosers (2000 vs. 2002)

Independent variable	2000					2002				
	Discloser of FLI	Non-discloser	T-statistic	Z-statistic	Discloser of FLI	Non-discloser	T-statistic	Z-statistic	Z-statistic	
Overall corporate governance score	2.40	2.16	-3.156***		2.69	2.71	-0.240			
BOARD	0.576	0.602	-0.894		0.553	0.588	-1.297*			
Dominant personality	102.68	98.23		1.001	90.45	93.99			0.830	
Chair independence	100.37	100.63		0.047	90.51	93.92			0.683	
Board independence	104.68	96.15		1.043	91.40	92.77			0.173	
Non-executive Director Ownership	93.7	107.58		1.696*	90.69	93.69			0.380	
COMMEE	0.578	0.435	2.878**		0.515	0.504	0.207			
Compensation committee	111.79	88.74		3.706***	95.30	87.75			1.348	
Independence of compensation committee	78.62	68.78		1.409*	72.67	73.47			0.116	
Nomination committee	100.43	100.57		0.022	87.76	97.46			1.510	
OSHIP	0.513	0.493	0.513		0.828	0.842	-0.528			
Top institutional owner	99.80	100.21		0.058	90.42	94.04			0.530	
Block shareholdings	101.25	98.68		0.315	93.35	90.26			0.391	
Concentration of shareholdings	100.78	98.17		0.320	92.33	91.58			0.094	
AUDIT	0.72	0.631	3.189***		0.790	0.773	0.731			
Audit committee	103.52	97.36		2.218**	93.10	90.59			1.031	
Independence of audit committee	104.19	87.96		2.070**	86.52	92.30			0.770	
Frequency of audit committee meetings	99.56	93.10		0.824	90.35	89.53			0.107	

**Table 5** continued

Independent variable	2000				2002			
	Discloser of FLI	Non-discloser	T-statistic	Z-statistic	Discloser of FLI	Non-discloser	T-statistic	Z-statistic
Big 6 auditor	105.14	95.67	2.092**	93.39	90.21		0.803	
Independence of auditor	97.44	103.69	0.764	93.47	90.11		0.425	

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

Variable definitions

BOARD, Board autonomy (standardised value)

COMMEE, Presence and quality of board committees (standardised value)

OSHIP, Independent ownership (standardised value)

AUDIT, Audit quality (standardised value)

**Table 6** Comparison of corporate governance for disclosing and non-disclosing firms

	Strong governance	Weak governance	Total
Year 2000			
Discloser	64	38	102
Non-discloser	46	52	98
Total	110	90	200
	$\chi^2 = 3.849; p = 0.025$ (corrected for continuity)		
Year 2002			
Discloser	50	53	103
Non-discloser	44	36	80
Total	94	89	183
	$\chi^2 = 0.751; p = 0.193$ (corrected for continuity)		

the results for 2000, none of the differences in the corporate governance attributes of disclosing and non-disclosing firms is statistically significant.

The average value of the corporate governance score for all firms (i.e., 2.28 for 2000 and 2.70 for 2002 as shown in Table 4) is then used to classify the firms as having either weaker corporate governance (less than mean score) or stronger corporate governance (greater than or equal to the mean score).<sup>12</sup> Table 6 shows whether or not these firms disclose forward-looking information. In relation to the year 2000, 110 firms are found to have stronger corporate governance, while 90 companies have weaker corporate governance systems. Of the 110 firms with relatively strong governance systems, a majority of 64 firms are disclosers of forward-looking information. Conversely, of the 90 firms with weaker corporate governance, a majority of 52 firms do not disclose forward-looking information. A chi-squared test indicates that this difference is statistically significant ( $p = 0.025$ ), demonstrating that firms with stronger corporate governance are more likely to disclose forward-looking information. For 2002, the difference between disclosing and non-disclosing firms in terms of their corporate governance has narrowed considerably. Both groups are slightly more likely to disclose forward-looking information and the chi-squared test is not significant ( $p = 0.193$ ).

### 5.3 Logistic regression results

Table 7 reports the results of the two logistic regression models for the year 2000. The table indicates that all independent variables are moving in the predicted

<sup>12</sup> It should be noted that, as our variable is constructed dichotomously as an observation above or below the mean, some firms may have been classified in the "stronger" governance group in 2000 and the "weaker" governance group in 2002, even though their corporate governance score had improved between the two periods.

**Table 7** Year 2000: logistic models of decision to disclose forward-looking information

Variable	Predicted sign	Coefficient	Wald statistic	Significance
Dependent variable = 1, if a firm discloses forward-looking information in financial report = 0, if a firm does not disclose forward-looking information in financial report				
$FLI = \alpha + \beta_1 BOARD + \beta_2 COMMEE + \beta_3 OSHIP + \beta_4 AUDIT + \beta_5 SIZE + \beta_6 PERFORM + \beta_7 INFO + \beta_8 LEVG + \varepsilon$				
BOARD	+	0.015	0.000	0.493
COMMEE	+	0.676	2.029	0.077*
OSHIP	+	0.046	0.007	0.468
AUDIT	+	1.715	4.051	0.022**
SIZE	+	0.238	1.177	0.139
PERFORM	?	-0.006	0.273	0.301
INFO	+	0.358	1.898	0.084*
LEVG	?	0.774	1.248	0.132
	Sample size	$n = 200$		
	Chi-squared statistic	19.445		
	Significance level	0.013		
	Nagelkerke $R^2$	12.4%		
$FLI = \alpha + \beta_1 CG + \beta_2 SIZE + \beta_3 PERFORM + \beta_4 INFO + \beta_5 LEVG + \varepsilon$				
CG	+	0.639	4.393	0.018**
SIZE	+	0.344	2.867	0.045**
PERFORM	?	-0.007	0.312	0.288
INFO	+	0.399	2.341	0.063*
LEVG	?	0.742	1.174	0.139
	Sample size	$n = 200$		
	Chi-squared statistic	15.531		
	Significance level	0.008		
	Nagelkerke $R^2$	10%		

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

Variable definitions

FLI, 0/1 dummy variable set to 1 if forward-looking information disclosed in financial report

BOARD, Board autonomy (standardised value)

COMMEE, Presence and quality of board committees (standardised value)

OSHIP, Independent ownership (standardised value)

AUDIT, Audit quality (standardised value)

CG, Firm's overall corporate governance score (standardised value)

SIZE, Firm size: Logarithm of sales (to base 10)

PERFORM, Firm performance: Return on assets

INFO, Information environment: Book to market

LEVG, Firm leverage: Debt to total assets

**Table 8** Year 2002: logistic models of decision to disclose forward-looking information

Variable	Predicted sign	Coefficient	Wald statistic	Significance
Dependent variable = 1, if a firm discloses forward-looking information in financial report = 0, if a firm does not disclose forward-looking information in financial report				
$FLI = \alpha + \beta_1 BOARD + \beta_2 COMMEE + \beta_3 OSHIP + \beta_4 AUDIT + \beta_5 SIZE + \beta_6 PERFORM + \beta_7 INFO + \beta_8 LEVG + \varepsilon$				
BOARD	+	-1.381	2.677	0.102
COMMEE	+	-0.581	0.929	0.334
OSHIP	+	-0.594	0.353	0.552
AUDIT	+	0.711	0.351	0.276
SIZE	+	0.132	0.275	0.300
PERFORM	?	-0.003	0.241	0.312
INFO	+	-0.005	0.002	0.483
LEVG	?	3.075	8.390	0.002***
	Sample size	$n = 183$		
	Chi-squared statistic	14.124		
	Significance level	0.079		
	Nagelkerke $R^2$	10%		
$FLI = \alpha + \beta_1 CG + \beta_2 SIZE + \beta_3 PERFORM + \beta_4 INFO + \beta_5 LEVG + \varepsilon$				
CG	+	-0.485	1.822	0.176
SIZE	+	0.222	0.819	0.182
PERFORM	?	-0.004	0.353	0.276
INFO	+	0.006	0.002	0.481
LEVG	?	2.739	7.130	0.004***
	Sample size	$n = 183$		
	Chi-squared statistic	11.138		
	Significance level	0.049		
	Nagelkerke $R^2$	7.9%		

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

#### Variable definitions

FLI, 0/1 dummy variable set to 1 if forward-looking information disclosed in financial report

BOARD, Board autonomy (standardised value)

COMMEE, Presence and quality of board committees (standardised value)

OSHIP, Independent ownership (standardised value)

AUDIT, Audit quality (standardised value)

CG, Firm's overall corporate governance score (standardised value)

SIZE, Firm size: Logarithm of sales (to base 10)

PERFORM, Firm performance: Return on assets

INFO, Information environment: Book to market

LEVG, Firm leverage: Debt to total assets



direction.<sup>13</sup> In the first regression model, only the presence and quality of board committees (COMMEE) and audit quality (AUDIT) are statistically significant. The former returns a Wald Statistic of 2.029 at the 10% significance level ( $p = 0.077$ ). The latter has an associated Wald Statistic of 4.051, at the 5% level of significance ( $p = 0.022$ ). Of the control variables, only INFO is statistically significant at a 10% level of significance ( $p = 0.084$ ). The Chi-square of 19.445 is significant at  $p = 0.013$ . The Nagelkerke  $R^2$  indicates that 12.4% of the decision to disclose forward-looking information is explained by the first model. These results provide support for Hypotheses 2 and 4 for the year 2000. However, there is no support for Hypotheses 1 and 3.

The second logistic regression incorporates the overall measure of corporate governance (CG) and the four control variables (SIZE, PERFORM, INFO, LEVG). The table shows that CG is statistically significant at the 5% level ( $p = 0.018$ ). This indicates that the strength of the firm's corporate governance framework in the year 2000 is positively associated with the disclosure of forward-looking information in financial reports. Hence, Hypothesis 5 is supported for the year 2000. Of the control variables, SIZE and INFO are significant ( $p = 0.045$  and  $p = 0.063$  respectively). This suggests that larger firms may be motivated to disclose forward-looking information to mitigate their political costs. Firms may also decide to publish prospective information to alleviate information asymmetry surrounding high growth firms. The Nagelkerke  $R^2$  indicates that 10% of the decision to disclose forward-looking information is explained by the model, while the chi-square statistic resulting from the omnibus test of model coefficients is significant at the 1% level ( $p = 0.008$ ).

Table 8 reports the results of the two logistic regression models for the year 2002. The table indicates that only one of the independent variables (AUDIT) is moving in the predicted positive direction, but the result is not statistically significant.<sup>14</sup> Accordingly, none of the hypotheses is supported for the year 2002. Of the control variables, only LEVG is statistically significant, at a 1% level of significance ( $p = 0.002$  in the first model and  $p = 0.004$  in the second model). This result differs from 2000, where leverage exhibits a positive but insignificant relationship with the dependent variable, suggesting that gearing is more powerful in terms of motivating the disclosure of forward-looking information in 2002 compared with 2000. The Chi-square statistic is significant in both models ( $p = 0.079$  in the first model and  $p = 0.049$  in the second model) while the Nagelkerke  $R^2$  indicates that the models respectively explain 10% and 8% of the decision to disclose forward-looking information.

Overall, these results point to some important differences between 2000 and 2002. With respect to the year 2000, audit quality (AUDIT), the presence and quality of board committees (COMMEE) and the overall efficacy of the corporate governance system (CG) are positively associated with the disclosure of forward-

<sup>13</sup> The Spearman correlation coefficients (not reported) reveal that, although several statistically significant correlations are discovered between some of the variables, none of these is highly correlated.

<sup>14</sup> The Spearman correlation coefficients (not reported) reveal that there are no significant correlations exhibited between the variables are below 0.5, apart from that exhibited between AUDIT and COMMEE, which is calculated to be 0.551.

looking information. Also, the information environment (INFO) of the sample firms for 2000 has a significant and positive effect on the disclosure of forward-looking information, as does firm size. However, the disclosure of forward-looking information does not seem to be driven by the same factors in 2002. In spite of the apparent strengthening of corporate governance, none of the governance attributes is significantly associated with the disclosure of forward-looking information. However, firm leverage (LEVG) appears to have a strong positive association with the disclosure of this information.<sup>15</sup>

## 6 Concluding comments

In this study we investigate the association between a firm's corporate governance framework and the decision to voluntarily disclose forward-looking information in its published financial reports. The forward-looking information disclosed by sample firms exhibits certain common characteristics. The majority of disclosing firms publish qualitative forward-looking information within reports prepared by the chief executive officer, chairman and managing director. Further, such statements tend to be expressed in terms of expecting an upward movement in such measures as profit, earnings or income. This trend persists for both 2000 and 2002.

Our results show that disclosing firms typically experience a higher standard of corporate governance than non-disclosing firms, but only for the year 2000. With respect to that year, our logistic regression results show that the corporate governance category *audit quality* is positively associated with the decision to disclose forward-looking information in financial reports. The category *board committees* is also positively associated with the disclosure of forward-looking information as is the overall efficacy of the *corporate governance system*. In 2002, none of the governance categories is significantly associated with the firm's decision to publish forward-looking information in financial reports. This result is in spite of the increase in corporate governance scores for firms from 2000 to 2002 which suggest an across-the-board improvement in corporate governance during this period. Hence, while corporate scandals such as those involving Enron Corporation in the US, Parmalat in Europe and HIH Insurance Ltd in Australia saw corporate governance take global centre stage, it appears that this did not lead to a greater level of disclosure, at least in the context of forward-looking information.<sup>16</sup>

The study has a number of limitations. The use of an index of governance mechanisms to arrive at an overall corporate governance score involves attaching an equal weighting to the various governance attributes. This assumes that every attribute is equally important to all firms. A further problem arises from the need to transform continuous scores to dichotomous variables in order to integrate them into

---

<sup>15</sup> The results remain largely unaltered when alternative specifications of the control variables are used.

<sup>16</sup> It is also possible that the corporate collapses, together with world events such as terrorist attacks, led to increased uncertainty across global capital markets between 2000 and 2002. This greater level of uncertainty could have impacted on the willingness of companies to disclose information about the future. This provides an alternative explanation for the failure to find an increase in disclosure in spite of stronger corporate governance in 2002. We thank an anonymous reviewer for raising this possibility.

the composite score. Splitting around the mean is a somewhat arbitrary way of dichotomising the variable and classification problems arise for those companies just above or below the mean value. An additional problem arises when comparing across the two years since some firms may be classified differently over the 2-year period because of changes in the means, even though their individual scores do not change. Further, using summary categories of corporate governance characteristics has the potential to mask major underlying relationships (Larcker et al. 2005). The sample in this study is selected from the top 300 firms by net profit, for the years 2000 and 2002, subject to certain exclusions. Examining a non-random sample of firms introduces an inherent bias into the study (Watts 1994) as larger, more profitable firms are expected to disclose more information (including prospective data). The selection criterion may also have led to the non-significant results for our performance control variable. Another potential concern of the study is the “staleness” issue wherein the “annual report may not be a timely disclosure medium” (Clarkson et al. 1994, p. 445). Specifically, if firms pre-empt disclosures in annual reports using alternative media (e.g., press releases), such disclosures would not constitute news to the market and as such, the “predictions of the voluntary disclosure literature would not apply”. Firms may pre-empt disclosures via alternative means of communication or decide to only reveal information within such media, totally bypassing the annual report. Indeed, Chan et al. (2006) report that 2,424 earnings-related prior announcements, wherein management referred to current period or future period profits, revenues, distributions/dividends or production, were made to the ASX over the period September 1994 to December 2001.

In spite of these limitations, the results of this study contribute to the relevant literature in a number of ways. First, we provide a deeper examination of voluntary corporate disclosure. The study addresses the broader category of disclosure of forward-looking information in financial reports, which includes but is not limited to quantitative earnings projections. Second, the study provides a more thorough representation of corporate governance within the firm by considering fifteen governance devices. Third, our comparison of results between 2000 and 2002 reveals a marked reduction in the association between corporate governance and the disclosure of forward-looking information in spite of a strengthening of governance during the period. These findings are particularly relevant to corporate regulators and policy makers, given the global interest in corporate governance and its expected role in improving the integrity and transparency of financial reports. Indeed, our findings cast some doubt on the effectiveness of corporate governance mechanisms to promote transparency and hence improve market confidence.

Future research could extend the study by expanding the time period under consideration. In particular, it may be worthwhile to consider whether the improvements in corporate governance exhibited from 2000 to 2002 have been sustained. Additional research could further expand the study by altering the sample selection criteria to remove any bias based on size or profitability. Finally, an important contribution to the literature would be to examine the association between corporate governance variables and the disclosure of forward-looking information in media other than annual reports.

**Acknowledgements** We gratefully acknowledge the helpful comments of two anonymous reviewers, Keryn Chalmers, Stephen Cox, Christine Jubb, Brendan O'Connell, Chris Ryan, John Sweeting, the referees at Journal of Management and Governance, and participants at the 2006 Annual conference of the Accounting and Finance Association of Australia and New Zealand (AFAANZ), Wellington, New Zealand.

## References

- Abbott, L. J., & Parker, S. (2001). Audit committee characteristics and auditor switches. *Research in Accounting Regulation*, 15, 151–166.
- Accounting Standards Board, Reporting Standards. <http://www.frc.org.uk/asb/technical/standards/reporting.cfm>
- Ajinkya, B. B., Bhojraj, S., & Sengupta, P. (2005). The association between outside directors, institutional investors and the properties of management earnings forecasts. *Journal of Accounting Research*, 43(3), 343–376.
- American Institute of Certified Public Accountants (AICPA). (2001). *Performance measures – News and views* 1:1–6. (Web Document), URL: [http://ftp.aicpa.org/public/download/assurance/view/pvNewsletter2001\\_08.pdf](http://ftp.aicpa.org/public/download/assurance/view/pvNewsletter2001_08.pdf)
- Arthur, N., Garvey, G., Swan, P., & Taylor, S. (1993). Agency theory and “management research” – A comment. *Australian Journal of Management*, 18, 91–102.
- Australian Accounting Standards Board. (1998). *AASB1039: Concise financial reports*.
- Australian Stock Exchange. (2003). *ASX guidance note 10: Review of operations and activities – Listing rule 4.10.17* (Web Document), URL: <http://www.asx.com.au/ListingRules/guidance/GuidanceNote10.pdf>
- Baiman, S., & Verrecchia, R. (1996). The relation among capital markets, financial disclosure, production efficiency and insider trading. *Journal of Accounting Research*, 34, 1–22.
- Balsam, S., Krishnan, J., & Yang, J. S. (2003). Auditor industry specialization and earnings quality. *Auditing: A Journal of Practice & Theory*, 22, 71–97.
- Beasley, M. S. (1996). An empirical analysis of the relation between board of director composition and financial statement fraud. *The Accounting Review*, 71, 443–466.
- Beekes, W., & Brown, P. R. (2006). Do better governed Australian firms make more informative disclosures. *Journal of Business Finance and Accounting*, 33(3–4), 422–450.
- Botosan, C. A. (1997). Disclosure level and the cost of equity capital. *The Accounting Review*, 72, 323–349.
- Bradbury, M. E. (1992). Voluntary disclosure of financial segment data: New Zealand evidence. *Accounting and Finance*, 32, 15–26.
- Brickley, J. A., & James, C. M. (1987). The takeover market, corporate board composition and ownership structure. *Journal of Law and Economics*, 30, 161–181.
- Brickley, J. A., Lease, R. C., & Smith, C. W. (1988). Ownership structure and voting on anti-takeover amendments. *Journal of Financial Economics*, 20, 267–291.
- Brown, L. D., & Caylor, M. L. (2006). Corporate governance and firm operating performance. Available at SSRN: <http://www.ssrn.com/abstract=814205>
- Bujaki, M., & McConomy, B. (2002). Corporate governance: Factors influencing voluntary disclosure by publicly traded Canadian firms. *Canadian Accounting Perspectives*, 1, 105–139.
- Bushee, B. J., & Noe, C. F. (2000). Disclosure quality, institutional investors and stock return volatility. *Journal of Accounting Research*, 38(Supplement), 171–202.
- Bushman, R., & Smith, A. (2001). Financial accounting research and corporate governance. *Journal of Accounting & Economics*, 31, 457–468.
- Byrd, J. W., & Hickman, K. A. (1992). Do outside directors monitor managers? Evidence from tender offer bids. *Journal of Financial Economics*, 32, 195–221.
- Byrd, J. W., Johnson, M. F., & Porter, S. L. (1998). Discretion in financial reporting: The voluntary disclosure of compensation peer groups in proxy statement performance graphs. *Contemporary Accounting Research*, 15, 25–52.
- Cadbury Committee. (1992). *Report of the committee on the financial aspects of corporate governance*. Gee, London.

- Cahan, S. F., & Hossain, M. (1996). The investment opportunity set and disclosure policy choice: Some Malaysian evidence. *Asia Pacific Journal of Management*, 13, 65–85.
- Chan, H., Faff, R., Ho, Y. K., & Ramsay, A. (2006). The effects of forecast specificity on the asymmetric short-window share market response to management earnings forecasts, Working Paper, Monash University.
- Choon, H., Smith, M., & Taylor, S. (2000). What do Australian annual reports say about future earnings? *Australian Accounting Review*, 10, 17–25.
- Clarkson, P. M., Kao, P. J., & Richardson, G. (1994). The inclusion of forecasts in the MDA Section of annual reports: A voluntary disclosure perspective. *Contemporary Accounting Research*, 11, 423–450.
- Coffee, J. C. (2001). The acquiescent gatekeeper: Reputational intermediaries, auditor independence and the governance of accounting. Working Paper, Columbia University.
- Cooke, T. E. (1989). Disclosure in the corporate annual reports of Swedish companies. *Accounting and Business Research*, 19, 113–124.
- Core, J. E. (2001). A review of the empirical disclosure literature: Discussion. *Journal of Accounting and Economics*, 31, 441–456.
- Core, J. E., Holthausen, R., & Larcker, D. (1999). Corporate governance, chief executive officer compensation and firm performance. *Journal of Financial Economics*, 51, 371–406.
- Coulton, J., James, C., & Taylor, S. (2003). The effect of compensation design and corporate governance on the transparency of CEO compensation disclosures. Working Paper, University of Technology, Sydney.
- Cox, C. T. (1987). Earnings variability, firm size, and the information content in management forecasts of annual earnings. *Journal of Accounting and Public Policy*, 6, 139–153.
- Craswell, A. T., & Taylor, S. L. (1992). Discretionary disclosure of reserve by oil and gas companies: An economic analysis. *Journal of Business Finance and Accounting*, 19, 295–308.
- Davidson, R., Goodwin-Stewart J., & Kent, P. (2005). Internal governance structures and earnings management. *Accounting & Finance*, 45, 241–267.
- Davis, S. M. (2001). *The race for global corporate governance*, 1–5. (Web Document). URL: <http://www.cipe.org/ert/e31/e31-3.php3>
- DeFond, M. L. (1992). The association between changes in client firm agency costs and auditor switching. *Auditing: A Journal of Practice and Theory*, 11, 16–31.
- DeFond, M. L., Raghunandan, K., & Subramanyam, K. R. (2002). Do non-audit service fees impair auditor independence? Evidence from going concern audit opinions. *Journal of Accounting Research*, 40, 1247–1274.
- Denis, D. J., & Serrano, J. M. (1996) Active investors and management turnover following unsuccessful control contests. *Journal of Financial Economics*, 40, 239–266.
- Donaldson, L., & Davis, J. H. (1991). Stewardship theory or agency theory: CEO governance and shareholder returns. *Australian Journal of Management*, 16, 49–63.
- Gompers, P., Ishii J., & Metrick, A. (2003). Corporate governance and equity prices. *Quarterly Journal of Economics*, 118, 107–155.
- Forker, J. J. (1992). Corporate governance and disclosure quality. *Accounting and Business Research*, 22, 111–124.
- Haniffa, R. M., & Cooke, T. E. (2002). Culture, corporate governance and disclosure in Malaysian corporations. *Abacus*, 38, 317–349.
- Healy, P. M., & Palepu, K. G. (2001). Information asymmetry, corporate disclosure, and the capital market: A review of empirical disclosure literature. *Journal of Accounting & Economics*, 31, 405–440.
- Ho, S. S. M., & Wong, K. S. (2001). A study of corporate disclosure practice and effectiveness in Hong Kong. *Journal of International Financial Management and Accounting*, 12, 75–102.
- Hossain, M., & Ahmed, K. (2000). The effect of growth opportunities on audit fees: Evidence from an emerging market. *International Journal of Business Studies*, 8, 37–53.
- Hossain, M., Ahmed, K., & Godfrey, J. M. (2005). Investment opportunity set and voluntary disclosure of prospective information: A simultaneous equation approach. *Journal of Business Finance and Accounting*, 32, 871–907.
- Hossain, M., Tan, L. M., & Adams, M. (1994). Voluntary disclosure in an emerging capital market: Some empirical evidence from companies listed on the Kuala Lumpur stock exchange. *The International Journal of Accounting*, 29, 334–351.

- Karamanou, I., & Vafeas, N. (2005). The association between corporate boards, audit committees, and management earnings forecasts: An empirical analysis. *Journal of Accounting Research*, 43(3), 453–486.
- Kent, P., & Ung, K. (2003). Voluntary disclosure of forward-looking earnings information in Australia. *Australian Journal of Management*, 28, 273–285.
- Kosnick, R. D. (1987). Greenmail: A study of board performance in corporate governance. *Administrative Science Quarterly*, 32, 163–185.
- Lang, M., & Lundholm, R. (1993). Cross-sectional determinants of analyst ratings of corporate disclosures. *Journal of Accounting Research*, 31, 246–271.
- Lang, M., & Lundholm, R. (1996). Corporate disclosure policy and analyst behaviour. *The Accounting Review*, 71, 467–492.
- Larcker, D. F., Richardson, S. A., & Tuna, A. I. (2005). How important is corporate governance? Available at SSRN: <http://www.ssrn.com/abstract=595821>
- Leftwich, R. W., Watts, R. L., & Zimmerman, J. L. (1981). Voluntary corporate disclosure: The case of interim reporting. *Journal of Accounting Research*, 19(Supplement), 50–77.
- Lev, B., & Penman, S. (1990). Voluntary forecast disclosure, nondisclosure and stock prices. *Journal of Accounting Research*, 28, 49–76.
- Lennox, C. S. (1999). The relationship between auditor accuracy and auditor size: An evaluation of reputation and deep pockets arguments. *Journal of Business, Finance and Accounting*, 26, 779–806.
- McMullen, D. A., & Raghunandan, K. (1996). Enhancing audit committee effectiveness. *Journal of Accountancy*, 182, 79–81.
- Meek, G. K., Gray, S. J., & Roberts, C. B. (1995). Factors influencing voluntary annual report disclosures by U.S., U.K. and Continental European multinational corporations. *Journal of International Business Studies*, 26, 555–572.
- Molz, R. (1988). Managerial domination of boards of directors and financial performance. *Journal of Business Research*, 16, 235–249.
- Nagar, V., Nanda, D., & Wysocki, P. D. (2003). Discretionary disclosure and stock-based incentives. *Journal of Accounting and Economics*, 34, 283–309.
- Narayanan, R. (2000). Insider trading and the voluntary disclosure of information by firms. *Journal of Banking and Finance*, 24, 395–425.
- Neu, D., Warsame, H., & Pedwell, K. (1998). Managing public impressions: Environmental disclosures in annual reports. *Accounting, Organizations and Society*, 23, 265–282.
- Ontario Securities Commission. (1989). *Ontario securities commission policy statement* (No. 5.10).
- Osteryoung, J. (2002). Too much debt. *The Jim Moran Institute for Global Entrepreneurship: Business Advice in the Press* (8th February), (Web Document). URL: <http://www.cob.fsu.edu/jmi/articles/debt.asp>
- O'Sullivan, M., & Percy, M. (2004). Concise financial reporting in Australia: Has the concise financial report replaced the traditional financial report for adopting companies? *Australian Accounting Review*, 14, 40–47.
- Peasnell, K. V., Pope, P. F., & Young, S. (2005). Board monitoring and earnings management: Do outside directors influence abnormal accruals? *Journal of Business Finance and Accounting*, 32, 1311–1346.
- Preston, A. M., Wright, C., & Young, J. J. (1996). Imag[in]ing annual reports. *Accounting, Organizations and Society*, 21, 113–137.
- Raffournier, B. (1995). The determinants of voluntary financial disclosure by Swiss listed companies. *European Accounting Review*, 4, 261–280.
- Rechner, P. L., & Dalton, D. R. (1991). CEO duality and organisational performance: A longitudinal analysis. *Strategic Management Journal*, 12, 155–160.
- The Sarbanes-Oxley Act*. (2002). (Web Document): URL: <http://www.legalarchiver.org/soa.htm>
- Seah, S. Y., & Tarca, A. (2007). An investigation of the international comparability of management discussion and analysis reports. Working Paper, University of Western Australia.
- Sengupta, P. (1998). Corporate disclosure quality and the cost of debt. *The Accounting Review*, 73, 459–474.
- Skinner, D. (1994). Why firms voluntarily disclose bad news. *Journal of Accounting Research*, 32, 38–60.
- Skinner, D. (1997). Earnings disclosures and stockholder lawsuits. *Journal of Accounting and Economics*, 23, 249–282.
- Song, J., & Windram, B. (2004). Benchmarking audit committee effectiveness in financial reporting. *International Journal of Auditing*, 8, 195–205.

- Strebel, P. (1996). Managing the information cost of finance. *Columbia Journal of World Business*, 31, 39–45.
- Uzun, H., Szewczyk, S. H., & Varma, R. (2004). Board composition and corporate fraud. *Financial Analysts Journal*, 60, 33–43.
- Walker, R. G. (2004). Gaps in guidelines on audit committees. *Abacus*, 40, 157–192.
- Watts, R. L. (1994). Positive research in accounting. In S. Jones, C. Romano, & J. Ratnatunga (Eds.), *The foundations of modern financial accounting thought*. Sydney: Harcourt Brace.
- Weisbach, M. S. (1988). Outside directors and CEO turnover. *Journal of Financial Economics*, 20, 431–460.
- Wright, D. W. (2001). Evidence on the relation between corporate governance characteristics and the quality of financial reporting. Working Paper, University of Michigan.
- Yeoh, E., & Jubb, C. A. (2001). Governance and audit quality: Is there an association? Working Paper, University of Melbourne.
- Young, S. (2000). The increasing use of non-executive directors: Its impact on U.K. board structure and governance. *Journal of Business Finance and Accounting*, 27, 1311–1342.

## Author Biographies

**Madonna O’Sullivan** PhD lectures in Accounting at Queensland University of Technology, Queensland, Australia. Her research interests are in the area of corporate governance and auditing. Madonna recently completed her doctoral studies on “An Investigation of the Role Played by Corporate Governance in the Voluntary Disclosure of Forward-Looking Information and the Quality of Corporate Financial Reports”.

**Majella Percy** PhD is a senior lecturer in Accounting at Queensland University of Technology. Her research fits under the broad umbrella of corporate governance, focusing on topical international accounting issues including valuation of intangible assets especially Research & Development; the transparency/quality of both earnings and disclosures in corporate annual reports; and environmental reporting.

**Jenny Stewart** PhD is a Professor of Accounting in the Griffith Business School, Griffith University, Queensland, Australia. She has held previous positions in universities in Australia, New Zealand and Singapore. Jenny’s main research interests are in the areas of corporate governance and auditing, with a particular interest in the relationships between internal audit, external audit and audit committees.